Special Area Designations

The following are recognized land use designations for protection of one or more sensitive resources that will be used in this RMP: Area of Critical Environmental Concern (ACEC), Back Country Byway, Wild and Scenic River, and Wilderness/Wilderness Study Area

Areas of Critical Environmental Concern

Areas qualified for consideration for the ACEC designation must have substantial significance and value, including qualities of more than local significance and special worth, consequence, meaning, distinctiveness, or cause for concern, and must meet criteria of relevance and importance as defined in 43 CFR 1610.7-2 (see Appendix K). ACEC management is outlined in Table 2-43. Maps 2-59, 2-60, 2-61 2-62, and 2-63 show special area designations under the No-Action Alternative and each of the proposed alternatives.

Table 2-43. Area of Critical Environmental Concern–Land Use Allocations
(*Estimated Acres Includes All Federal and Private Ownership within Proposed Boundaries)*

Relevance	Importance	Acres				
		Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
Three Rivers Riparian ACEC						
▪ Riparian resources ▪ Threatened and endangered species habitat ▪ Scenic values	Protects riparian habitat, a limited resource in the southwestern United States. Provides for semi-primitive setting around the Bill Williams River while allowing for a degree of interaction with the natural environment around Lake Alamo.	32,608	21,603	0	2,246	
Swansea Historic District ACEC						
▪ Historic Swansea Townsite Cultural/historical resources ▪ Natural views ▪ Includes associated shafts, adits, historical features, roads, railroads, and the Swansea pump station.	Eligible for inclusion on the National Register of Historic Places (NRHP) and provides a unique opportunity to interpret turn-of-the-century mining. The remote, natural location is irreplaceable and adds to public's understanding of the Swansea story.	NA	6,839	995	3,679	5,973
Lake Havasu's Aubrey Hills Natural Area ACEC						
▪ Unique geological formations ▪ Important to the viewshed ▪ Intimate watershed to Lake Havasu ▪ Critical habit for threatened and endangered species	Scenic, wildlife and natural values: This area is important in maintaining biological integrity of the Arizona shoreline of Lake Havasu	NA	19,088	10,748	18,152	0

Table 2-43. Area of Critical Environmental Concern–Land Use Allocations
(*Estimated Acres Includes All Federal and Private Ownership within Proposed Boundaries)*

Relevance	Importance	Acres				
		Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
▪ Bighorn sheep habitat and Lambing grounds						
Whipple Wash Natural Area ACEC						
▪ Unique geological formations ▪ A natural viewshed for Lake Havasu ▪ Valued watershed for Colorado River and Lake Havasu ▪ Important Bighorn sheep habitat ▪ Maternity roosts and lek sites for bats. ▪ Critical habit for threatened and endangered species	Scenic, wildlife and natural values. This area is important in maintaining biological integrity of the California shoreline of Lake Havasu.	NA	10,962	0 (Would not be designated as an ACEC but would be allocated a SRMA)	0 (Would not be designated as an ACEC but would be allocated a SRMA)	0
Beale Sough Riparian and Cultural ACEC						
▪ Regional rare riparian resources and wildlife habitat ▪ Significant cultural resources ▪ Place of traditional Native American importance ▪ BLM cultural sites within part of a regional cultural complex.	The area has regional importance as it was set in reserve to stop the gradual decline of aquatic and associated riparian and terrestrial habitat along the Colorado River. This area was part of mitigation for the channelization by BOR in 1951. There is an interagency cooperative management agreement to assure	NA	2,395	121	189	2,395

Table 2-43. Area of Critical Environmental Concern–Land Use Allocations
(*Estimated Acres Includes All Federal and Private Ownership within Proposed Boundaries)*

Relevance	Importance	Acres				
		Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
	maintaining this wildlife habitat. This area was also identified by the 2005 *Multiple Species Conservation Plan* for its fish and wildlife values. The area's fragile and irreplaceable prehistoric sites are eligible for inclusion on the NRHP. Protection is needed to assure that the public will continue to have an opportunity to have an interaction with the natural environment and cultural values of the area.					
Bullhead Bajada Natural and Cultural ACEC						
▪ Historic Beale's Wagon Road ▪ Adjacent prehistoric resources ▪ Mojave Desert tortoise ▪ Threatened species present throughout the area	Beale built the wagon road in 1857 in the "Great Camel Experiment" along the 35th parallel. He followed existing prehistoric trails and associated sites. The site complex is eligible for the NRHP and is of regional, if not national, importance. ACEC designation would protect the complex from impacts of expanding urbanization in the Bullhead City area.	NA	6,448	690	4,057	7,090

Table 2-43. Area of Critical Environmental Concern–Land Use Allocations
(*Estimated Acres Includes All Federal and Private Ownership within Proposed Boundaries)*

Relevance	Importance	Acres				
		Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
Black Peak Cultural ACEC						
▪ Significant traditional use areas	Mountain is associated with the creation stories of the Yuman-speaking peoples.	NS	740	0	0	0
Crossman Peak Scenic ACEC						
▪ Significant places of traditional cultural importance ▪ Natural scenic backdrop or mountain preserve for Lake Havasu City ▪ Major lambing grounds for bighorn sheep ▪ Large tract of public land that exhibits high degree of naturalness with little human modification of the landscape	Protects a sacred mountain, sites eligible for inclusion on the NRHP, and priority wildlife habitat from impacts of expanding urbanization in the Lake Havasu region. The scenic value of Crossman Peak is irreplaceable to the region. Large areas within the ACEC provide the region an area with high opportunity for isolation from the sights and sounds of humans.	Remains Natural Scenic Area See "Visual Resource" section	64,263	24,930	49,502	48,855
Cienega Mining District Historic ACEC						
▪ Historic period mining ▪ Bat habitat area	Historic mining district that receives large public visitation and local tourism. Site is important to regional history, and the area provides bat habitat for specific species not found elsewhere in planning area.	NA	6,649	0 (Would not be designated as an ACEC but would be allocated a SRMA.)	0 (Would not be designated as an ACEC but would be allocated a SRMA.)	0
Total Acres		32,608	138,987	37,484	77,825	74,554

Table 2-44 describes the Management Actions that would cover each ACEC. The alternative that would include a listed management action is noted under each proposed ACEC in this table.

- This table also lists three Management Actions that were prescribed under an activity-level plan for the Swansea Townsite. These Management Actions would continue under Alterative 1 as well as in the other alternatives.
- See minerals for restrictions for ACECs.

Table 2-44. ACEC Management Actions

Management Actions	ACEC/Area								
	Three Rivers Riparian	Swansea Historic District	Lake Havasu's Aubrey Hills	Whipple Wash	Bullhead Bajada	Beale Slough	Crossman Peak	Black Peak	Cienega Mining District
Improvements on the four areas managed under special prescriptions, would be limited to those compatible with the natural resources for which the area is recognized and those permitted by mining laws.			Alt 1	Alt 1			Alt 1		
Acquisition of all non-federal lands and minerals within the ACEC boundary.	Alt 1 Alt 2 Alt 4 Alt 5	Alt 5	Alt 2 Alt 3 Alt 4	Alt 2	Alt 2 Alt 3 Alt 4 Alt 5	Alt 2 Alt 5	Alt 2 Alt 3 Alt 4 Alt 5		Alt 2
Develop desired plant community descriptions and design grazing prescriptions to achieve the desired plant community objectives.	Alt 2 Alt 4 Alt 5	Alt 5					Alt 2 Alt 3 Alt 4 Alt 5	Alt 2	
In ACECs that contain recreation values, facilities would be limited to projects that protect the values used to designate the area as ACEC. The values for each ACEC include those settings and experiences that were identified in the ROS inventory and/or set as management objectives in recreation management.	Alt 2 Alt 4 Alt 5	Alt 2 Alt 3 Alt 4 Alt 5	Alt 2 Alt 3 Alt 4	Alt 2	Alt 2 Alt 3 Alt 4 Alt 5	Alt 2 Alt 3 Alt 4 Alt 5	Alt 2 Alt 3 Alt 4 Alt 5	Alt 2	Alt 2

Table 2-44. ACEC Management Actions

Management Actions	ACEC/Area								
	Three Rivers Riparian	Swansea Historic District	Lake Havasu's Aubrey Hills	Whipple Wash	Bullhead Bajada	Beale Slough	Crossman Peak	Black Peak	Cienega Mining District
Camping would be limited to developed or signed sites.	Alt 2	Alt 1 Alt 2 Alt 5	Alt 2		Alt 2 Alt 4 Alt 5	Alt 2 Alt 5	Alt 2		
Camping may be limited to identified areas. Some parts or whole ACECs would be closed to overnight camping. These allocations will be made in activity-level plans.	Alt 5	Alt 3 Alt 4 Alt 5	Alt 3 Alt 4 Alt 5	Alt 2	Alt 3	Alt 3 Alt4	Alt3 Alt4 Alt 5	Alt2	Alt2
Prohibit recreational shooting, except for legal hunting, in identified areas (e.g. within town site at Swansea) or posted.	Alt 5	Alt 5	Alt 2 Alt 4	Alt 2	Alt 3	Alt 2	Alt 5		
Prohibit recreational shooting, except for legal hunting, within ACEC boundaries.	Alt 2	Alt 2		Alt 2	Alt 2 Alt 4 Alt 5	Alt 5	Alt 2	Alt 2	Alt 2
Hiking and non-motorized use would be encouraged by developing a non-motorized trail network.		Alt 2 Alt 3 Alt 4 Alt 5	Alt 3 Alt 4		Alt 5		Alt 2 Alt 3 Alt 4 Alt 5		Alt 2
BLM lands within the ACEC would be closed to motorized vehicle use except for administrative needs and authorized users.			Alt 1 Alt 2 Alt 3 Alt 4						
One motorized access would be provided to the shoreline.			Alt 3						
Prohibit firewood collection (within town site at Swansea).	Alt 2 Alt 4 Alt 5	Alt 1 Alt 2 Alt 3 Alt 4	Alt 2 Alt 3 Alt 4	Alt 2	Alt 2 Alt 3 Alt 4	Alt 2 Alt 3 Alt 4 Alt 5	Alt 2 Alt 3 Alt 4	Alt 2	Alt 2

Table 2-44. ACEC Management Actions

Management Actions	ACEC/Area								
	Three Rivers Riparian	Swansea Historic District	Lake Havasu's Aubrey Hills	Whipple Wash	Bullhead Bajada	Beale Slough	Crossman Peak	Black Peak	Cienega Mining District
		Alt 5							
Prohibit driving except on designated open and signed routes in Swansea Townsite.		Alt 1 Alt 2 Alt 3 Alt 4 Alt 5							

Administrative Actions

- Partnerships will be sought to provide for cooperative management of the ACEC including but not limited, other agencies, city municipalities, and other interested stakeholders, e.g., Beale Slough.
- BLM would work with partners, local, state, and private landowners to secure conservation easements where necessary to protect designating values of ACECs.

Back Country Byways

BLM's Back Country Byway program is part of the National Scenic Byway system and considered a "partnership" arrangement strongly interrelated with efforts by state and local governments. A Back Country Byway would provide a vehicle-based, backcountry experience with amenities to heighten visitor experiences and educate and inform visitors about interesting natural and cultural features along the route. Visitors could expect the road to be occasionally difficult and settings to be remote. The road might not be accessible to all classes of vehicle.

LHFO has one designated National Back Country Byway, Parker Dam Road. Partners for this Byway included BOR, San Bernardino County, Metropolitan Water District, and Colorado River Indian Tribes. Table 2-45 below lists the potential nominations for Back Country Byways by alternative. A Back Country Byway would be evaluated and nominated if standards and requirements are met. Nominations of these Byways would require local partners. See Maps 2-61 through 2-64.

Table 2-45. Back County Byways–Desired Future Conditions

Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
NA	Provide for interconnectivity between local communities and to work in partnership for the regional development of eco- and recreational tourism.			
NA	Expose visitors to the local recreational resources, various multiple-use management programs and interpret natural, cultural, geological, and scenic features.			

Table 2-46. Back Country Byway—Allocation

Back Country Byways	Interpretive Themes	Segment	Type**	Miles	Alt1	Alt2	Alt3	Alt4	Alt5
Alamo Lake	Range, Wilderness, Burros, Wildlife, wildflowers	1	I	36.00	NA	NA	X	NA	
Parker – Bouse - Swansea	Historic Mining, Wilderness, CAP, Ranching, Geology. Cultural	1	II	18.59	NA	NA	X	X	
		2	III	7.30					
		3	I	13.16					
		4	II	10.10					
Camp Bouse	Historic WWII Training Camp	2	III	19.41	NA	NA	X	NA	
Cienega	Historic Mining, Bats, OHV recreation.	1	I	5.33	NA	NA	X		
		2	III	3.94					
Harquahala	Mining, Bighorn Sheep, Geology	1	I	13.26	NA	NA	X		
Parker Dam Road*	Colorado River, “Threads of Life”	1	I	16.70	X	X	X	X	
Plomosa	Geology, rockhounding, Bighorn Sheep, Mining	1	I	20.05	NA	NA	X	X	

† For a description of byway types see Appendix K

Table 2-47. Back County Byways–Management Actions

Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
Not specifically addressed in previous LUPs	Acquire easements and rights-of-way where needed to ensure long-term public access.			
Not specifically addressed in previous LUPs	Directional, safety, and interpretive signing would be installed to enhance public use, enjoyment, and stewardship of the route.			
Not specifically addressed in previous LUPs	Back Country Byways which cross bighorn sheep habitat will include protection measures such as but not limited to: 25 mph speed limits, and warning signs and or speed bumps.			

Wilderness/Wilderness Study Area Management

The five WAs in the LHFO and portions of three others in California would be managed in compliance with the designating Act, the Wilderness Act of 1964, BLM's wilderness management regulations at 43 CFR 6300, BLM's Wilderness Management Policy (Manual 8560 and subsequent Instruction Memoranda), and Wilderness Management Plans, where completed.

In the Arizona Desert Wilderness Act of 1990, Congress maintained WSA status for the 59,100-acre Cactus Plain area. An exceptional variety of rare and endangered plants exists in this stabilized sand dune complex. BLM is required by the Act to protect these resources and wilderness values. LHFO would manage the WSA under BLM's *Interim Management Policy and Guidelines for Land under Wilderness Review* (Manual 8550 and subsequent Instruction Memoranda) until final determination of the status of the Cactus Plain WSA by Congress (see Map 2-64).

Table 2-48. Wilderness–Desired Future Conditions

Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
Not specifically addressed in previous LUPs	To provide for the long-term protection and preservation of the designated area's wilderness character under the principle of non-degradation. The area's natural condition, opportunities for solitude, opportunities for primitive and unconfined types of recreation, and any ecological, geological, or other features of scientific, educational, scenic, or historical value present will be managed so that they will remain unimpaired.			
	To manage the WA for the use and enjoyment of visitors in a manner that will leave the area unimpaired for future use and enjoyment as wilderness. The wilderness resources will be dominant in all management decisions where a choice must be made between preservation of wilderness and visitor use.			
	To manage nonconforming but accepted uses permitted by the Wilderness Act and subsequent laws in a manner that will prevent unnecessary or undue degradation of the area's wilderness character. Nonconforming uses are the exception rather than rule; therefore, emphasis is placed on maintaining wilderness character.			

Table 2-49. Allocations for the Wilderness Study Area (*if released by Congress*)

Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
The following decisions are derived from the 1987 YRMP as amended and are applicable only to those lands covered by the YRMP: Cultural, natural, and riparian values are a priority consideration on these areas (Whipple Mountains and Cactus Plain). Allowable uses on management areas for cultural, natural, and riparian resources, which include compatible activities or those uses toward mitigation as needed, preserve or enhance the recognized values. In the Cactus Plain, grazing use is managed as described for this area under "Rangeland Management/Grazing" Alternative 1.	If Cactus Plain were released from WSA status by Congress, the management of the area would not change extensively. To protect the stabilized sand dune complex and the associated vegetation within the area in the "Transportation and Public Access" section of this RMP the area would be classified "Limited to Authorized Users." Under "Mineral Resources," mineral material disposals would not be authorized within the area and mineral leasing would be subject to no surface occupancy." The area would continue to managed to meet the Primitive ROS setting for Recreational Opportunities	If Cactus Plain were released from Wilderness Study status by Congress, the management of the area would change. Under the "Transportation and Public Access" section of this RMP the area would be classified "Limited Designated Trails." Under "Mineral Resources," the area would be open to mineral material disposals and mineral leasing.	If Cactus Plain were released from WSA status by Congress, the management of the area would not change extensively. To protect the stabilized sand dune complex and the associated vegetation within the area in the "Transportation and Public Access" section of this RMP the area would be classified "Limited to Authorized Users." Under "Mineral Resources," mineral material disposals would not be authorized within the area and mineral leasing would be subject to no surface occupancy." The area would continue to managed to meet the Primitive ROS setting for Recreational Opportunities	

Table 2-50. Wilderness–Management Actions

Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
Not specifically addressed in previous LUPs	Accommodate the traditional or sacred use that may be identified in the future by the tribes that historically used the WAs.			
	No recreational facilities, including trails, would be constructed within the WAs unless needed for public safety or the protection of natural conditions and/or any ecological, cultural, geological, or other features of scientific, educational, scenic, or historical value.			

Administrative Actions

- Provide guidance for the application of nonconforming but accepted uses permitted by the Wilderness Act and subsequent laws. This guidance would be established in the following plans:
  - The East Cactus Plain Wilderness would be managed under the 1994 *East Cactus Plain Wilderness Management Plan*; this plan would be updated as needed.
  - Gibraltar Mountain WA would be managed under the 2001 *Gibraltar Mountain Interdisciplinary Management Plan* and updated as needed.
  - Segments of the Dead Mountains Wilderness, Chemehuevi Mountains Wilderness, and Whipple Mountains Wilderness plans would be completed in conjunction with the Needles Field Office.
  - An interdisciplinary plan would be developed for the Bill Williams River area, which would incorporate the Rawhide Mountains and Swansea WAs.
  - Harcuvar Mountains WAs would be managed under the East Harcuvar Mountains Interdisciplinary Management Plan, which is now in preparation.
- Reduce unauthorized vehicle use in all WAs through use of visitor education outside of wilderness, construction of trailheads, and development of barriers and/or restoration of closed vehicle trails.
- Sign wilderness boundaries along boundary roads at least every 0.2 mile or at specific sites of vehicle intrusion.

Wild and Scenic River Management

Table 2-51. Wild and Scenic Rivers–Desired Future Conditions

Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
The following decision is derived from the 1995 KRMP and would cover the entire planning area				
Eligible stream segments would be managed to preserve their suitability for inclusion into the Wild and Scenic River System. Outstandingly remarkable values must be protected and the free-flowing character of the stream segments cannot be modified.				

Table 2-52. Wild and Scenic Rivers–Land Use Allocations

Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
The following decision is derived from the 1987 YRMP and is applicable only to those lands covered by the YRMP: Segment C of the Bill Williams River would be considered for eligibility and potential inclusion into the National Wild and Scenic Rivers System. Segment C is 5 miles long and extends from the old District boundary to Planet Ranch.	This RMP would not change the December 1994 final *Arizona Statewide Wild and Scenic Rivers Legislative Environmental Impact Statement and Study Report/Record of Decision* (February 1997) recommendations that approximately 20.5 miles of the Bill Williams River are suitable for inclusion into the National Wild and Scenic Rivers System, classified as follows (see Map 2-64): ▪ Segment 1 would be 8.3 miles in length, covering 2,314 acres, and would be recommended as Wild. ▪ Segment 2 would be 5.1 miles in length, covering 494 acres, and would be recommended as Scenic. ▪ Segment 3 would be 6.2 miles in length, covering 1,850 acres, and would be recommended as Wild. Congress has not acted on these recommendations. Pending congressional action, these segments would be managed to protect the outstandingly remarkable values identified as making the segments eligible for protection under the Wild and Scenic Rivers Act.			
Not specifically addressed in previous LUPs	A new segment may be identified by BLM for inclusion in the Wild and Scenic River system after possible acquisition of private property (Planet Ranch) on the Bill Williams River. A study/EIS would be completed within 5 years of acquisition to determine the suitability of the segment for inclusion in the Wild and Scenic River system.			

Table 2-53. Wild and Scenic Rivers–Management Actions

Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
The following Management Actions were listed in the final *Arizona Statewide Wild and Scenic Rivers Legislative Environmental Impact Statement and Study Report/Record of Decision* (Bureau of Land Management 1994) and would apply only after Congress designates the Bill Williams River as Wild and Scenic				
Not specifically addressed in previous LUPs	BLM would consolidate land ownership in the area of the Bill Williams River (see the "Lands and Realty" section of this chapter).			
	New ROWs would be discouraged on 486 acres of the study area not in wilderness.			
	The construction of dams, levees, hydropower facilities, or major types of diversion would be prohibited on as much as 15.9 riparian miles			
Appendix K - Includes all Management Actions that were listed in the final *Arizona Statewide Wild and Scenic Rivers Legislative Environmental Impact Statement and Study Report/Record of Decision* (Bureau of Land Management 1994) that will continue under that Record of Decision, until Congressional action to protect the outstandingly remarkable values and free-flowing character of the suitable segments. Congressional designation of the river segments would require the writing of a management plan within 3 years of official designation and these Management Actions could be updated at that time.				

Administrative Actions

- Instream flow would be monitored to establish the minimum flow necessary to protect the outstandingly remarkable values.

Lake Havasu Regional Management Area

"When we try to pick out anything by itself, we find it hitched to everything else in the universe."

John Muir, July 27, 1869

"…the public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will provide for outdoor recreation and human occupancy and use;"

Federal Land Policy and Management Act of 1976, Section 102 (a) (8)

The Lake Havasu Regional Management Area (LHRMA) has been identified as 61,399 acres stretching from the Havasu Wildlife Refuge in the north to the Bill Williams Wildlife Refuge in the south (see Map 2-65). The area includes the lake surface, lake bottom, and shorelines to the east and west, which play important resource roles within the region. There are numerous jurisdictions managing varying aspects of the resources, along with a variety of stakeholders. The intent of LHRMA is to unite the planning and management of the area for social, economic, and environmental benefits. The identification of LHRMA by BLM is the first step in attaining a collaborative management effort between the jurisdictions concerned with the Lake Havasu Region.

LHRMA provides a wide range of environments and plays host to numerous social, economic, and biological values. As such, LHRMA can be divided into zones (Cooperative Management Zones) so attention can be paid to the specific issues within an area. See Table 2-55 below.

The management of portions of this area was considered under other sections of this chapter such as Special Area Designations, as several ACECs. Other allocations, designations and Management Actions overlap this identification such as, Recreation Management, Biological Resources and, Transportation and Public Access. Those decisions can be found under the other Alternatives throughout this Chapter.

Table 2-54. Lake Havasu Regional Management Area–Goals & Objectives

Consensus would be achieved with other jurisdictions and resource stakeholders to cooperatively manage the identified area for the suitability and improvement of all resource values.
Partners, agencies, and other organizations would cooperate to create dynamic management systems for the future of LHRMA.
Each resource, whether part of the social, economic, or environmental setting would be given emphasis in the planning and management of the area.
The public would easily see the cooperative management of the area and understand the importance of each resource and how the resources are inseparably intertwined.

Table 2-55. Lake Havasu Regional Management Area–Cooperative Management Zones

The Lake Havasu Regional Management Area (61,399 acres) includes an area from the south edge of the Havasu Wildlife Refuge to the Parker Dam including both AZ and CA shorelines. The area would also include the Havasu Aubrey Hills region west of State Route (SR) 95 and the Whipple Mountains west of the CA shoreline (see Map 2-65). LHRMA would consist of eight Cooperative Management Zones (CMZs) that would have management prescribed to them to achieve the goals and objectives for the resources in each.

Zone	Name	Acres
CMZ 1	Whipple Mountains	9,496
CMZ 2	North Aubrey	4,923
CMZ 3	Aubrey Hills	11,517
CMZ 4	AZ Shoreline	1,745
CMZ 5	Havasu Springs	1,380
CMZ 6	CA Shoreline	1,589
CMZ 7	North Lake Havasu	20,726
CMZ 8	South Lake Havasu	6,205

Table 2-56. Lake Havasu Regional Management Area–Administrative Actions
Management to provide compatibility across LHRMA would be developed between jurisdictions and would address the multitude of issues that affect the region.
A strategy would be created that recognizes the importance of each individual resource and the strong links among them in maintaining the unique environment. Planning concerning this area would be interdisciplinary, cooperative in nature, and provide balanced management to specific areas within LHRMA.
The creation of a LHRMA board, council, and/or friends group would be supported in the interest of gaining partners to collaboratively approach the management of LHRMA for the benefit of all resource stakeholders.
A communication model (e.g., informational and interpretive media) would be fashioned that would address common and needed visitor services across LHRMA and between jurisdictions.

Typical Management Actions & Standard Operating Procedures

This section describes the objectives, basic management policy, and program direction that will continue to apply under all alternatives. This direction is fundamental and its associated guidance is based on laws, regulations, executive orders, BLM planning manuals, policies, instruction memoranda, and applicable planning documents. A summary of the associated guidance that applies to the resources and proposals being analyzed in this RMP/EIS is included in Appendix A. The information that follows pertains to public lands managed by BLM in the LHFO area, except as noted. BLM would maintain the practices, procedures, and policies listed below:

Rangeland Management/Grazing

Desired plant community objectives would be quantified for each allotment through the rangeland monitoring and evaluation process. Ecological site descriptions available through the National Resource Conservation Service and other data will be used as a guide for addressing site capabilities and/or potentials for change over time. These desired plant community objectives are vegetative values that BLM is managing over the long term. Once established, desired plant community objectives would be updated and monitored based on indicators for Land Health Standard 3 (see Appendix D). These standards were developed through a collaborative process and identify the characteristics of and the management actions needed to promote and sustain healthy ecosystems on public lands.

Monitoring studies will be used to determine conformance with the *Arizona Standards for Rangeland Health and Guidelines for Grazing Administration*. Monitoring studies generally include actual use, utilization, trend, and climate. The three management categories would be used to set priorities. These studies would be analyzed through the evaluation process to determine management actions needed to achieve standards and meet multiple-resource management objectives.

Typical Range Improvements

Following is a discussion of typical design features, construction practices, and implementation procedures for range improvements that could be constructed following the Final RMP/EIS. The extent, location, and timing of such actions will be based on allotment-specific management objectives adopted through the evaluation process, interdisciplinary development and analysis of proposed actions, and funding.

Fences

All new fences would be built to BLM manual specifications. Fences would normally be constructed to provide exterior allotment boundaries, divide allotments into pastures,

protect streams, and control livestock. Most fences would be three-wire or four-strand with steel posts spaced 16.5 feet apart with intermediate wire stays. Existing fences that create wildlife movement problems would be modified. Proposed fence lines would usually not be bladed or scraped. Gates or cattle guards would be installed where fences cross existing roads.

All new or reconstructed fences in big game habitat, including desert bighorn sheep habitat, will meet specifications in BLM Handbook 1741-1 or be designed to allow for the movement of big game, including desert bighorn sheep. BLM will consult with AGFD on the design and location of new fences.

Pipelines

Wherever possible, water pipelines would be buried. The trench would be excavated by a backhoe, ditch witch, or similar equipment. Plastic pipe would be placed in the trench and the excavated material would be used to backfill. Most pipelines would have water tanks spaced as needed to achieve proper livestock distribution.

Reservoirs

Stock pond sites would be selected based on available watershed and hydrologic information. All applicable state laws and regulations would be followed.

Wells

Well sites would be selected based on geologic reports that predict the depth to reliable aquifers. All applicable state laws and regulations that apply to groundwater would be observed.

Supplemental Feed Authorization

Supplemental feed must be authorized in advance. Supplemental feed means a feed that supplements the forage available from the public lands and is provided to improve livestock nutrition or rangeland management.

If used, salt should be placed at least 0.25 mile from water sources to disperse impacts.

Management actions outlined in the *Arizona Standards for Rangeland Health and Guidelines for Grazing Administration* will be applied to identify and correct potential erosion problems that could negatively impact other resources. Prioritized emphasis will be placed on those sites that might directly impact species that have been listed as threatened, endangered, or candidate species by USFWS.

Land Tenure

Acquisition

Land and Water Conservation Fund: Congressionally appropriated funds are provided for conservation of significant resources within designated project areas.

Baca Bill: The Federal Land Transaction Facilitation Act of 2000, commonly referred to as the Baca Bill, amended FLPMA to allow a percentage of receipts from qualifying land sales and equalization payments from qualifying exchanges to be returned to BLM. Acquisition of lands using Baca receipts is limited to the purchase of private and state parcels within the boundaries of Special Area Designations (such as, but not limited to ACEC, Wilderness, WSA, and Wild and Scenic River etc.) as designated in this RMP.

Easements: BLM acquires two basic types of easements: conservation easements for the protection of resources and access easements to enhance the ability of the public to use and enjoy the public lands.

Exchanges (43 CFR 2200) are generally undertaken at the request of an external customer or proponent. BLM must make a determination of public interest before processing an exchange. The regulations require that an exchange proponent cover at least half the processing costs of an exchange if BLM decides to pursue the action.

Disposal

FLPMA Sales: Sales are discretionary actions undertaken by BLM either in response to a request from an external customer or in furtherance of land use plan decisions to dispose of lands no longer needed by the federal government. If a determination is made that there are no known mineral values, or where a reservation of the minerals to the United States would interfere with or preclude non-mineral development and the non-mineral development is a more beneficial use of the land than the mineral development, BLM would not dispose of the land.

BLM policy requires the use of competitive sale procedures unless the authorized officer determines the public interest would be best served by modified competitive bidding or direct (non-competitive) sale. In no case may the lands be sold for less than fair market value.

Baca Sales: Baca sales are processed the same as FLPMA sales but the receipts are returned to BLM and can be used for enhancement of resource programs and/or purchase of high-value resources. Lands considered Baca sale lands are those that were identified for disposal by sale in land use plans in place at the passage of the Baca Legislation, P.L. 106-248 (July 25, 2000).

Recreation and Public Purposes (R&PP) Act Patents: R&PP actions are externally generated actions typically requested in support of community development. Normally, lands are leased until substantially developed as intended, and then a patent can be issued. However, in situations where there is potential for contaminants to create a liability for

the government, lands are transferred without first requiring the lease, and the reversionary provision of the transfer is limited to lands that have not been contaminated. Even after lands are patented, BLM has a continuing responsibility for ensuring compliance with the terms of the patent.

Split Estate: Landowners or prospective landowners may request purchase of the minerals underlying their surface estate when there are no known mineral values, or where the reservation of the minerals interferes with or precludes appropriate non-mineral development and such development is more beneficial use of the land than the mineral development. Split estate also occurs when the federal government owns the surface and the minerals are owned by a private entity. This type of split estate is addressed in the "Mineral Resources" section of this chapter.

Public lands have potential for disposal when they are isolated and/or difficult to manage. Disposal actions are usually in response to a public request or application that results in a title transfer, wherein the lands leave the public domain. The lands are sold at their fair market value. All public lands will be retained unless specifically identified for disposal.

Leases/Permits

In general, under all lands adjustments, BLM will protect valid existing rights, including but not be limited to authorized permits, leases, and rights-of-way (ROWs).

Withdrawal

LHFO will continue to review existing withdrawals periodically to ensure that the reasons for the withdrawal are still valid and that only the acreage needed is retained in withdrawn status. LHFO policy will be to continue to minimize the amount of land withdrawn (particularly from mining and mineral leasing) in favor of leases, permits, or cooperative use agreements, which are more flexible.

Use Authorization

Rights-of-Way

Under the authority of FLPMA and the Mineral Leasing Act of 1920, the LHFO grants ROWs and temporary use permits to qualified individuals, businesses, and government entities for use of public lands. LHFO processes ROW applications for access, oil and gas, pipeline, power line, water line, telephone lines, fiber optic lines, communication sites, etc. All ROW applications will continue to receive environmental review on a case-by-case basis.

Specific proposals for ROWs within corridors would still be required to go through the environmental and permitting process

Corridors/Communication Sites

To the extent possible, new ROWs will be located within or parallel to existing ROWs or ROW corridors to minimize resource impacts. Designated corridors will be the preferred location for major utility ROWs.

Leases/Permits

Permits or leases issued under the 43 CFR 2920 regulations will not be issued for less than fair market value rent.

Renewable Energy

BLM will consider the need for the production and distribution of energy and the need to encourage the development of renewable energy sources. Future applications would undergo site-specific environmental analysis as part of the ROW or commercial lease process.

Mineral Resources

Acquired lands (excluding BOR-acquired lands) will be opened to mineral entry unless critical resource values—including but not limited to special status species, eligible archeological sites, riparian habitat—or public health and safety require mineral withdrawal.

Post mining use should be determined by the prevailing land use before the disturbance or as deemed appropriate by the authorized officer.

Locatable Minerals

Regulations contained in 43 CFR 3715 and 43 CFR 3809 provide for the management of surface disturbance associated with mineral exploration and development, including mining claim use and occupancy. BLM reviews mining notices and plans in the time allotted as identified in the regulations. For notice-level operations, if time permits, a site visit would be conducted for lands identified in a mining notice by the geologist and an archeologist and biologist, if available. A site visit would always be conducted by BLM during the processing of a Mining Plan of Operations. Mining plans and notice-level operations when mining claim occupancy is proposed would be assessed for impacts to desert tortoise habitat and would be mitigated to the extent allowable in 43 CFR 3809 regulations.

Mining plans and notice-level operations when mining claim occupancy is proposed are required to have the proper NEPA documentation prepared. BLM will work with operators to ensure that notices and plans are processed efficiently and in a timely manner. Reclamation plans and bonds are required for each notice and plan per

regulation. The amount of such bonds is for the full amount required to complete 100% of the required reclamation as if BLM were required to hire independent contractors to do the work.

In addition to the requirements of 43 CFR 3715 and 43 CFR 3809, state and federal laws provide for numerous other permits, including but not limited to an Aquifer Protection Permit and a National Pollutant Discharge Elimination Act (NPDES) permit, both issued by the Arizona Department of Environmental Quality (ADEQ); a Section 404 permit issued by the U.S. Army Corps of Engineers; and a flood control permit issued by the applicable county. Also, Arizona state law requires mining claimants to keep mining property in a safe condition. The State Mine Inspector's office is responsible for enforcing this law. BLM will cooperate with all interested agencies to ensure that operations conducted on BLM-administered lands are in full compliance with all federal, state, local health and safety, and environmental laws as required by 43 CFR 3715.5.

All occupancy of mining claims must meet the requirements of 43 CFR 3715 and must meet the specific requirements of 43 CFR 3715.2. At a minimum, all occupancies would meet the requirements and standard stipulations contained in BLM Arizona's 1997 *Programmatic Environmental Assessment for Mining Claim Use and Occupancy*.

In designated wilderness, any disturbance greater than casual use would be grounds for initiating a validity examination. Mining in wilderness is allowed only on claims with a valid discovery and location existing before designation. Before BLM can approve Mining Plans of Operations submitted for work in a designated WA, a BLM mineral examiner must verify that a valid claim exists. The mineral examination and mineral report must confirm that minerals have been found and the evidence is of such character that a person of ordinary prudence would be justified in the further expenditure of his labor and means with a reasonable prospect of success in developing a valuable mine.

Saleable Minerals

The Material Sale Act of 1947 and 43 CFR 3600 provide for the disposal and regulation of mineral materials. Mineral material disposals will be administered on a case-by-case basis. Saleable minerals are sold at appraised value. Free use permits will continue to be issued to state and federal agencies, local communities, and nonprofit organizations as the need arises. Compensation would be required for new or expansions of mineral material disposal sites within desert tortoise Category I, II, and III habitat. Disposals from lands withdrawn or acquired on behalf of BOR are allowed pursuant to a March 25, 1983, Memorandum of Understanding between BLM and BOR. BOR has administrative and surface management responsibility for disposal and use of mineral materials on project lands. BOR also has authority to allocate mineral materials for its own use. The Copper Basin Dunes and Crossroads Open OHV Areas are closed to mineral material disposals, as decided in the 1993 *Parker Strip Recreation Area Management Plan*.

Leasable Minerals

The Mineral Leasing Act of 1920, the Geothermal Steam Act of 1970, and 43 CFR 3100–3500 provide the regulatory framework for issuing mineral leases. These regulations

apply where public interest exists for the development of oil, gas, sodium, potassium, and geothermal energy. Where the need is identified in this RMP, stipulations intended to mitigate impacts to sensitive species, cultural areas, and other resources susceptible to impacts from leasing-related activities will be attached to some leases. Site-specific use authorization stipulations to protect sensitive resources may be required prior to approval of specific proposals. All leases will be subject to the terms and conditions of the standard lease form.

BLM will manage leasable minerals on all BOR withdrawn and acquired lands that are open to the mineral leasing laws. BLM will request BOR's consent and/or comments as to whether leasing is acceptable and, if so, any terms and conditions deemed necessary to protect the use for which the lands were withdrawn or acquired.

No leasing is permitted on lands with federal surface ownership and state or private subsurface ownership. If subsurface ownership were acquired, the lands would become available to leasing subject to the same stipulations that are placed on the surrounding lands.

Lands with state or private surface ownership and federal subsurface ownership are open to leasing. In such cases, BLM requests the lessees to indicate that they have reached an agreement with the surface owners prior to entertaining these lands for oil and gas exploration or development activities.

Lands that have been segregated from entry prior to disposal (e.g., R&PP lease/patent or sales) are open to oil and gas leasing unless specifically restricted in their classification.

Recreation Management

FLPMA provides for management of outdoor recreation resources on public lands. Section 202(c) (9) calls for land use planning consistent with Statewide Comprehensive Outdoor Recreation Plans (1989, 1994, 2003). Other national laws that govern the management of recreation in LHFO include the National Trails System Act of 1968, as amended; the Land and Water Conservation Fund Act of 1964, as amended; the Recreation and Public Purposes Act, as amended; and the Wilderness Act of 1964. Public lands along the Colorado River are to be managed in conformance with the Colorado River Floodway Protection Act of October 8, 1986 (Public Law 99-450) as amended 1994.

Generally, the goal of the LHFO outdoor recreation program is to ensure the continued availability of public land for a diverse array of quality outdoor recreation opportunities. Recreation use is managed to protect the health and safety of visitors; to protect natural, cultural, and other resource values; to stimulate enjoyment of public lands; and to resolve user conflicts. Visitor demands for new recreation will continue to influence the nature of recreational opportunities on public lands.

Most public lands are managed to maintain a freedom of recreational choice with a minimum of regulatory constraints. Where the nature of the resource and visitation dictates, public lands can be managed as Special Recreation Management Areas

(SRMA). Primary concerns in recreation management planning are for resource protection, public health & safety and enjoyment.

LHFO will continue using the following guidance to manage recreational use:

- Concession leases are considered when necessary to provide developed commercial recreation opportunities in appropriate settings when and where it would not be feasible for BLM or other government agencies to do so. These leases authorize the construction and/or implementation of long-term facilities and services that would require a substantial financial investment by private business or other non-governmental entities.
- Universal designs to facilitate needs of the physically challenged would be used in all or part of new construction or rebuilt BLM facilities.
- BLM would provide law enforcement rangers to protect natural and cultural resources and help provide for public health and safety.
- BLM would strive to make available staff members to provide visitor services, interpretive programs and maintain an agency presence within SRMAs. Their mission would be to regularly contact the public for resource information and environmental education. These staff members would be additional to law enforcement rangers.
- It is unlawful for a person to camp within ¼ mile of a natural water hole containing water or man-made watering facility containing water in such a place that wildlife or domestic stock will be denied access to the only reasonably available water (Arizona Revised Statute 17-308, Unlawful Camping).

Special Recreation Permits

Special Recreation Permits (SRPs) are authorizations allowing specific recreation uses of public lands and related waters. SRPs are issued to manage visitor use and protect natural and cultural resources while avoiding user conflicts. The legal authority and management policy is in *43 CFR Part 2930 et al. Permits for Recreation on Public Lands; and subpart 2932- Special Recreation Permits for Commercial Use, Competitive Events, Organized Groups, and Recreation Use in Special Areas*. BLM Handbook H-2930-1 Recreation Permit Administration application process contains applicable laws, policy, rules and regulations and conformance with resource planning decisions. The decision to authorize a proposed use depends on potential resource impacts, conflicts with other users, any public health and safety issues, past or present performance of the applicant with BLM or other agencies, and LHFO receiving a complete SRP application in a timely manner to process and administer the permit.

Types of Permits

1. Commercial Use: recreational use of the public lands and related waters for business or financial gain.

2. Competitive Use: any organized sanctioned or structured use, event or activity on public land and related waters in which two or more participants compete and (a) participants register, enter and/or complete an application; (2) a predetermined course or area is designated; or (3) participants contest an established record such as speed or endurance.
3. Organized group activity or event: a structured, ordered, consolidated, or scheduled event or occupation of public lands for recreational purposes not considered commercial of competitive.
4. Vending Use: use permitted to market, sell, or rent recreation-related goods or services including but not limited to, food, beverages, clothing, firewood, tool or equipment repair on public lands or related waters.

Vending on Public Lands

Vending is the marketing or sale of approved products or services to members of the public by a person or persons authorized by BLM.

Such sales may occur on concessions by parties to whom a concession lease has been issued. Concession leases are ordinarily utilized by BLM where long-term operations are desired and where a sizeable investment by a non-government or private party is required to furnish real property improvements.

Vending may also occur on a more restricted basis, for temporary or short periods at narrowly prescribed locations. For discussion in this plan, a vending permit is either a Special Recreation Permit or a Land Use Permit (43 CFR 2920, "Leases, Permits and Easements"), which may allow specific individuals commercial rights to sell services or items on public lands for a specified time period. Vending on Lake Havasu is included insofar as the vendor will anchor or operate within BLM-managed areas.

BLM will charge for its vending permits, and will never receive less than full fair value, which at a minimum will be its cost to issue and administer the vending permit. BLM may submit vending endeavors to a competitive bidding process and/or such other requirements it deems necessary to ensure minimum impact on the resource, minimum commercial intrusion on visitors to public lands, and to ensure that maximum quality, safety, and value are offered to the public when vending operations are *necessary* and *appropriate*.

Necessary means that the proposed vending contributes to visitor understanding and enjoyment of Lake Havasu, and that it enhances visitor experiences consistent with BLM resource values. Necessary also means that vending assists in managing visitor use and is an essential service or facility not available within a reasonable distance in the established business community.

Appropriate means the proposed vending activity is consistent with resource management laws, regulations, and policies applicable and that it does not compromise public health and safety or significantly impact or impair resources or values. *Appropriate* also means that the proposed vending activity does not unduly conflict with other uses or provide unfair or undue competition with existing similar businesses. Vending also would not exclude the general public from participating in recreational opportunities.

Vending authorizations are a privilege and revocable without compensation under conditions named by BLM. BLM has no obligation to issue or to renew a vending permit of any kind to any party. Vending permits are further managed according to BLM Handbook H-2930-1, "Recreation Permit Administration" (2003).

Transportation and Public Access

Public lands managed by BLM are intermingled with other federal agencies, county, state, and private lands. Managing access to and across public lands is a vital task for BLM. This authority includes but is not limited to items listed below.

- Federal Land Policy and Management Act of 1976 (43 USC 1701 *et seq*.)
- Endangered Species Act (16 USC 1531 *et seq.*)
- National Trails System Act (16 USC 1241 *et seq.*)
- Americans with Disabilities Act
- Executive Order 11644
- Executive Order 11989
- Title 5 rights-of-way
- Revised Statute (RS) 2477 roads
- National Management Strategy for Motorized Off-Highway Vehicle Use on Public Lands (2001)
- National Mountain Bicycle Strategic Action Plan (2002)

This RMP will establish OHV area designations based on 43 CFR 8340-5(f), (g), and (h). BLM's OHV area designations are as follows:

- **Open:** Open area means an area where all types of vehicular use is permitted at all times; anywhere in the area is subject to the operating regulations and vehicle standards set forth in 43 CFR 8341 & 8342.
- **Limited:** Limited area means an area restricted at certain times, in certain areas, and/or to certain vehicular use. These restrictions may be of any type but can generally be accommodated within the following type of categories: Numbers of vehicles; types of vehicles; time or season of vehicle use; permitted or licensed use only; use on existing roads and trails; use on designated roads and trails; and other restrictions.
- **Closed:** A closed area is an area where off-road vehicle use is prohibited. Use of off-road vehicles in closed areas may be allowed for certain reasons; however, such use will be made only with the approval of the authorized officer.

From IMAZ-2005-007:

"Permittees (e.g. for hunting, wood gathering, livestock operators) shall comply with field office route designations. Exceptions may be authorized on a case-by-case basis."

"Outside of National Monuments and National Conservation Areas, motorized vehicles may be allowed through a resource management plan level decision to pull off a designated route 100 feet either side of centerline. This use shall be monitored on a continuing basis. If monitoring results show effects that exceed limits of acceptable change, motorized vehicles will not be allowed to pull off a designated route 100 feet either side of centerline."

"BLM will not develop, endorse or publish road or trail ratings. BLM may describe physical characteristics of a route."

"Technical Vehicle Specialized Sport Site - could be managed as a Recreation Management Zone (RMZ), but not part of the transportation network."

Travel Management Network

All paved roads and gravel/dirt roads maintained by a state, county, or city would automatically be included as open or limited in the TMP.

All other routes, including roads, trails, ways or navigable washes shown on the existing inventory would be designated by the plan as either an open route, a limited route by type of use or season, or a route closed to motorized use.

Each route would be evaluated by a BLM interdisciplinary team using the criteria derived from Executive Order 11644. Routes previously designated in an activity-level plan (e.g., *Parker Strip Recreation Area Management Plan*, *Gibraltar Mountain Interdisciplinary Management Plan*) would not be affected. New route numbers may be assigned to previously designated routes to incorporate them into the TMN. Individual routes within these areas may be reevaluated only if it can be shown that sensitive resources or recreational opportunities are impacted by the earlier designation.

While areas of public lands designated as open would be exempt from route designation, specific routes crossing open areas may be identified as part of the TMN.

On public lands allocated as closed (e.g., WAs), no trails would be designated open for motorized travel. Trails may be designated limited by use (horse, hiking, or administrative).

Revisions to the TMP would follow the same process described above, including public notification within the LHFO planning area, and would be subject to NEPA.

Legal decisions can conceivably have an effect on the designation of routes.

Restoration of Closed Routes

BLM's strategy for restoring closed routes or trespasses would be accomplished as rapidly as funding permits. Sensitive resources in immediate danger, or those that have been damaged by vehicle trespass would be a high priority for restoration. Typically, the

restoration would be limited to that portion of the route or trespass that is in line of sight from an open route. The proposal for restoration would include:

- not repairing washed-out routes;
- using natural barriers, such as large boulders;
- using rocks and dead and down wood to obscure the route entryway;
- employing vertical mulching and pitting;
- ripping up the route bed and reseeding with vegetation natural to that area;
- utilizing fences or barriers;
- providing signage, including information to OHV users, on the need and value of resource protection;
- leaving the first 100 feet from the centerline of an open route unrestored to provide pullout areas or camping opportunities intended to discourage or prevent new ground disturbance elsewhere.

Each route would be evaluated, and the least intrusive method would be used based on geography, topography, soils, hydrology, and vegetation.

Overflights

Aircraft overflights, including low-level helicopter and fixed-wing overflights by other agencies and other use of the airspace over public lands, are not regulated by BLM. These uses occur now and will continue.

Biological Resources

The LHFO planning area provides unique habitat for federally listed and special status species. This diversity of habitats also supports a wide variety of more common game and non-game fish and wildlife species. If not properly managed, other uses of the public lands can damage wildlife habitat. BLM's Fundamentals of Rangeland Health (43 CFR 4180) addresses habitats that have been restored or may make significant progress towards restoration, as well as those that are actively being maintained for federally listed threatened, endangered, proposed, and candidate species, and other special status species. BLM Arizona's Standards for Rangeland Health (see Appendix D) include provisions for ensuring that productive and diverse upland and riparian wetland plant communities of native species exist and are maintained.

No activities or projects that would jeopardize the continued existence of federally listed threatened or endangered plant or wildlife species, or species proposed for listing (see table 3-3), would be permitted on BLM-administered lands.

Vegetation Management

Standard operating procedures and treatment methods would be used in a vegetation treatment program. BLM policies and guidance for public land treatments would be followed in implementing all treatment methods.

- Impacts to vegetation from construction, recreation, and other activities would be minimized or avoided. Unavoidable impacts would be mitigated. Where impacts to vegetation occur beyond approved boundaries, vegetative rehabilitation with suitable seed mix or root stock will follow
- Where plants would normally be lost due to development or disturbance of public land, salvage of useable native plants and parts of plants would be permitted. Plants and parts of plants would be removed from public land pursuant to applicable state law and federal regulations governing sale and/or transportation of plants.
- All future activity-level plans would identify desired plant communities on a site-by-site basis. Existing and potentially suitable riparian habitat would be occupied by native trees. Available and current information would be utilized (e.g., National Resource Conservation Service site guides).
- Riparian, wetland areas, and all springs would be evaluated and rehabilitated to achieve proper functioning condition.
- Practice would continue to adhere to the guidelines provided in BLM Manual Handbook H-1740-1, *Renewable Resource Improvement and Treatment Guidelines and Procedures* (1987).
- Programmatic documents such as BLM's Environmental Impact Statement for Vegetation Treatments, Watersheds and Wildlife Habitats on Public Lands Administered by the BLM in the Western United States, Including Alaska (1991) would be followed as would other general and specific program policy.
- Management and implementation of all resource programs would comply with the Arizona Standards for Rangeland Health and Guidelines for Grazing Administration (1997).
- The desired plant community standard for upland sites will provide native vegetation for adequate wildlife habitat and improved watershed function based on monitoring and ecological site potential. Upland sites include 5% or greater dry-weight composition of native perennial grass, as limited by the potential of the ecological site as described by National Resource Conservation Service *Ecological Site Guides*.
- The desired plant community for upland sites will have long-term, stable populations of cacti and agaves where the sites have the potential for such plant communities.
- The desired plant community standard for riparian areas will consist of streambanks dominated (>50%) by native species from the genera *Scirpus, Carex, Juncus,* and *Eleocharis.* The size class distribution of native riparian obligate trees will be >15% seedlings, >15% mid-size, and >15% large size (dependent of the existing conditions and potential of the site). Size classes are defined as follows: seedlings are < 1 inch basal diameter, mid-sizes are 1–6 inches in basal diameter, and large sizes are >6 inches in basal diameter.
- Allowable use livestock grazing within the ranges of the southwestern willow flycatcher will conform to the guidelines described in the "Not Likely to Adversely

Affect" section of *Guidance Criteria for Determinations of Effects of Grazing Permit Issuance and Renewal on Threatened and Endangered Species* (Bureau of Land Management and U.S. Fish and Wildlife Service, Arizona and New Mexico, 1999), or any subsequent agreed-upon amendment to these guidelines.

- Adverse impacts to natural plant and animal communities associated with invasive species will be reduced. Efforts to control or eradicate invasive wildlife species will be carried out in cooperation and collaboration with AGFD. A monitoring, management, and educational program will be established to reduce the insurgence of plants classified as invasive by the U.S. Department of Agriculture.
- The use and perpetuation of native plant species will be emphasized. However, when restoring or rehabilitating disturbed or degraded rangelands, non-intrusive, non-native plant species are appropriate for use where native species: (a) are not available, (b) are not economically feasible, (c) cannot achieve ecological objectives as well as non-native species, and/or (d) cannot compete with already established non-native species.
- The evaluation of vehicle routes, in conjunction with the route designation process, will consider the effect on wildlife habitat values. Routes that conflict with maintenance of sensitive wildlife habitat values will be mitigated. Mitigation could include, but would not necessarily be limited to: route closure, seasonal use restriction, rerouting, vehicle type restrictions, vehicle speed restrictions, or other mitigation measures appropriate to the nature of the conflict.
- Additionally, in coordination with AGFD, BLM would develop specific drought policy for LHFO to address continued livestock grazing impacts on wildlife habitat values during drought. This policy will address the need for timely response, sufficient vegetation recovery periods, indicators of drought recovery, and appropriate Management Actions.

Vegetation Treatment

Standard operating procedures and treatment methods would be used in a vegetation treatment program. BLM policies and guidance for public land treatments would be followed in implementing all treatment methods. Many guidelines are provided in BLM Manual Handbook H-1740-1, *Renewable Resource Improvement and Treatment Guidelines and Procedures* (1987); in BLM Arizona's *Standards for Rangeland Health and Guidelines for Grazing Administration* (1997); in programmatic documents such as BLM's *Environmental Impact Statement for Vegetation Treatments, Watersheds and Wildlife Habitats on Public Lands Administered by the BLM in the Western United States, Including Alaska* (1991); and in other general and specific program policy, procedures, and standards pertinent to implementation of renewable resource improvements. The manual, chemical, mechanical, biological, and/or fire treatment methods described in Appendix M, "Vegetation Treatments," would be used for all alternatives.

Fisheries Management

In 1993, *Lake Havasu Fisheries Improvement Program Environmental Assessment* (No. AZ-050-92-013) approved the enhancement of 875 acres of fish habitat in 42 separate coves and approved rearing 30,000 endangered razorback sucker and 30,000 endangered bonytail chub to 300 millimeters in length for population augmentation into Lake Havasu. The Environmental Assessment was supported by Yuma RMP decisions to improve wildlife habitat where needed. The seven-member Lake Havasu Fisheries Improvement Partnership was formed through an Memorandum of Understanding to accomplish these two decisions and to develop at least six barrier-free shoreline fishing facilities on Lake Havasu.

By the end of 2001, a total of 30,017 razorback sucker had been stocked to Lake Havasu, and by August 2004 more than 24,000 bonytail chub had been released into the lake.

Fish habitat improvement goals on Lake Havasu were accomplished in November 2002.

On December 5, 2003 the Lake Havasu Fisheries Improvement Partnership dedicated the fifth barrier-free shoreline fishing facility on Lake Havasu.

The Lake Havasu Fisheries Improvement Partnership is committed to achieving the 30,000 bonytail chub stocking goal and constructing the sixth recreational shoreline fishing site as soon as possible. The Partnership is also committed verbally to maintaining these improvements for public safety and functionality, and to monitoring fish populations within the lake to achieve the best possible understanding of population dynamics and habitat needs for all fish in the reservoir.

LHFO/BLM will utilize the following guidance as common to all alternatives:

- Ensure that all proposed BLM activities and authorizations in the planning area are reviewed and conducted in compliance with the Endangered Species Act of 1973 (ESA). Federal and state-listed species and critical habitats are protected by requiring site-specific evaluations and clearances. The findings of these evaluations may result in mitigation and/or some restrictions to plans or even disallow use and occupancy that would be in violation of the ESA by detrimentally affecting endangered or threatened species or their habitats. Any action that may affect federally listed species also requires consultation with USFWS under Section 7 of ESA.
- Provide opportunities for training and utilization of volunteers.
- Coordinate with state governments, tribes, and other governmental entities (under existing agreements and any new arrangements deemed necessary) to disseminate and exchange information and cooperate in Management Actions, consistent with applicable legal authorities and other directives.
- Establish collaborative research partnerships with academic institutions, professional and non-profit organizations, and other governmental entities.
- Evaluate needs for new data regarding population, distribution, and habitat requirements for special status species.

- Implement actions identified in recovery plans for listed species and protection of critical habitat. Monitoring of bonytail chub and razorback sucker populations will be conducted, in cooperation with the Lake Havasu Fisheries Improvement Partnership.
- Ensure that decisions are being implemented as scheduled and provide continuing evaluation of consistency with state and local plans and programs.
- Protect water quality to meet federal and state standards, and ensure the needs of fish and wildlife resources are met along with the needs of people.

Wildlife Management

Wildlife habitat use of riparian lands is managed in a manner consistent with BLM Manual 6740 (Wetland-Riparian Area Protection and Management), Federal floodplain management regulations, Bureau of Reclamation needs, and floodway clearance obligations of the International Boundary and Water Commission.

The State wildlife agencies of California and Arizona establish regulations and enforcement concerning fish and wildlife on all lands administered by the LHFO. Nothing will be construed as affecting the jurisdiction or responsibilities of the State agencies on these lands. Fishing, hunting and trapping are allowable activities on these lands.

BLM will provide diverse and high-quality habitats by restoration and maintenance of the native diversity, natural distribution, and abundance of wildlife species within the LHFO planning area, with sufficient resources and in a manner that perpetrates naturally functioning ecosystem processes.

Consistent with requirements of the Endangered Species Act of 1973, as amended, LHFO will continue an active program to benefit endangered species and to ensure that no activities funded, authorized, or carried out by BLM jeopardize the continued existence of any listed wildlife species or their essential habitats. BLM will not dispose of lands occupied by species that are listed or proposed to be listed as threatened or endangered under the Endangered Species Act.

BLM will utilize all means available to identify, protect, and conserve special status species habitat, then manage these habitats in consultation with authorities and in conformance with recovery and conservation management plans.

BLM will cooperate with other appropriate authorities to achieve desired populations for special status species.

BLM will conserve, enhance, and restore wildlife habitats, including conservation of natural springs, wetlands, and streams through cooperative partnerships with the federal, state, county, city, and private entities.

BLM will identify, minimize, and mitigate for wildlife habitat degradation, loss, and fragmentation.

BLM will coordinate and cooperate with federal and state agencies, along with partners, to assess the need to maintain, improve, and/or adjust the density or distribution of wildlife waters throughout the planning area to maintain the presence of water for wildlife populations across their range.

The development of springs and seeps, or other projects affecting water and associated resources, will be designed to protect ecological functions and processes and to continue to provide habitat at the source for endemic invertebrates that may be present.

Water developments for purposes other than wildlife will include design features that will ensure safe and continued access to water by wildlife.

Wind turbines, transmission lines, and telecommunication sites would conform with guidelines developed by the U.S Fish and Wildlife Service (USFWS) to minimize impacts to special status species.

Special Status Species Management

Desert Tortoise Habitat Management

Standardize desert tortoise management throughout their habitat. Management will be consistent with the following documents:

- *Desert Tortoise Habitat Management on Public Lands: A Rangewide Plan* (Bureau of Land Management 1988)
- *Strategy for Desert Tortoise Habitat Management on Public Lands in Arizona*, Instruction Memorandum No. AZ-91-16 (Bureau of Land Management 1990)
- Strategy for Desert Tortoise Habitat Management on Public Lands in Arizona: New Guidance on Compensation for the Desert Tortoise, Instruction Memorandum No. AZ-92-46 (Bureau of Land Management 1992)
- *Management Plan for the Sonoran Desert Population of the Desert Tortoise in Arizona* (Arizona Interagency Desert Tortoise Team 1996)
- *Supplemental Guidance for Desert Tortoise Compensation*, Instruction Memorandum No. AZ-99-008 (Bureau of Land Management 1999).

Desert tortoise habitat will be managed according to the categories and designations as depicted in Map 2-39.

Habitat management categories and boundaries will be revised as new population information becomes available. Sonoran desert tortoise habitat will be categorized following the criteria described in Table 2-57 below.

All proposed activities will be evaluated for impacts to desert tortoise population or habitats on a case-by-case basis. Such activities include but are not limited to those listed below.

- Requests for rights-of-way
- Easements
- Withdrawals
- Other land tenure actions
- Range improvements
- Wildlife habitat projects
- Mineral material sales
- Mining plans of operation
- Mining notices with surface occupancy
- Commercial and organized group special recreation permit applications

An aggressive, proactive public education program concerning the desert tortoise and its habitat requirements will be developed and maintained and will include participation in public events. The tortoise brochure will periodically be updated.

The following management guidelines for desert tortoise will be followed by BLM across all alternatives:

- Continue to work with and support other agencies and public entities concerning desert tortoise conservation.
- Maintain records of desert tortoise inventories.
- Consider locations for additional 1-square-mile study plots and re-read all 1-square-mile plots periodically.
- Inform and consult with the Sonoran Desert Tortoise Management Oversight Group to complete the necessary research to ensure the viability of tortoise populations and habitats.

The criteria shown in Table 2-57 are ranked by importance to the categorization process, with Criterion 1 being the most important.

Table 2-57. Goals and Criteria for Three Categories of Sonoran Desert Tortoise Habitat Areas

Items	Category I Habitat Areas	Category II Habitat Areas	Category III Habitat Areas
Category Goals	Maintain stable, viable populations and protect existing tortoise habitat values; increase populations, where possible.	Maintain stable, viable populations and halt further declines in tortoise habitat values.	Limit tortoise habitat and population declines to the extent possible by mitigating impacts.
Criterion 1	Habitat Area essential to maintenance of large, viable populations.	Habitat Area may be essential to maintenance of viable populations.	Habitat Area not essential to maintenance of viable populations.
Criterion 2	Conflicts resolvable.	Most conflicts resolvable.	Most conflicts not resolvable.
Criterion 3	Medium to high density or low density contiguous with medium or high density.	Medium to high density or low density contiguous with medium or high density.	Low to medium density not contiguous with medium or high density.
Criterion 4	Increasing, stable, or decreasing population.	Stable or decreasing population.	Stable or decreasing population.

Fire Management Response

The appropriate management response concept represents a range of available management responses to wildland fires. Responses range from full fire suppression to managing fires for resource benefits (fire use). Management responses applied to a fire would be identified in the fire management plans and would be based on objectives derived from the area's land use allocation, as determined in the *Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management* (Bureau of Land Management 2003); relative risk to resources, the public, and firefighters; potential complexity; and the ability to defend management boundaries. Any wildland fire can be aggressively suppressed and any fire that occurs in an area designated for fire use can be managed for resource benefits if it meets the prescribed criteria from an approved fire management plan.

Visual Resource Management

Class objectives would help BLM apply visual design techniques to ensure that surface-disturbing activities are in harmony with their surroundings. A visual contrast rating process would be used for analysis, which involves comparing the project features with the major features in the existing landscape using the basic design elements of form, line, color, and texture. Visual design consideration would be incorporated into all surface-disturbing projects regardless of size or potential impact. Emphasis is placed on BLM providing inputs during the initial planning and design phase to minimize costly redesign and mitigation at later phases of a project. The overall goal of VRM analysis is to minimize visual impacts through development of mitigating measures.

BLM would analyze all surface-disturbing projects according to the guidelines and procedures provided in BLM Manual 8431-1, Visual Resource Contrast Rating. Visual simulations could be used in evaluating the visual resource effects of a project. These projects would be assessed for the degree of visual contrast from the landscape using the elements of form, line, color, and texture. Proposed surface-disturbing projects would be evaluated from Key Observation Points for the following factors:

1. Distance (project from Key Observation Points)
2. Angle of observation
3. Length of time the proposed project would be in view
4. Relative size or scale
5. Season of use
6. Light conditions
7. Recovery time
8. Spatial relationships
9. Atmospheric conditions
10. Motion

Wilderness Characteristics

BLM will review, through this land use planning process, lands within the planning area that may possess wilderness characteristics, but that are not currently designated WAs or WSAs. Consistent with the Secretary of the Interior letter to Senator Robert Bennett, dated April 11, 2003, the settlement in the case of Utah v. Norton, dated April 14, 2003, and IM No. 2003-275 – Change 1, *Consideration of Wilderness Characteristics in Land Use Plan*s, dated October 23, 2003, BLM has the authority to address wilderness characteristics and describe management prescriptions in the RMP. In keeping with the public involvement process that is part of all land use planning efforts, BLM is committed to considering public input regarding wilderness characteristics through the land use planning process. Where appropriate, BLM may allocate in the RMP specified areas to maintain or enhance their wilderness characteristics. However, also consistent with the documents cited above, BLM will not establish new WSAs, manage any lands not already established as WSAs prior to April 2003 under the FLPMA Section 603 non-impairment standard, or report such areas to Congress. Where lands having resource values meeting the relevance and importance criteria necessary to establish an ACEC coincide with the presence of wilderness characteristics, the special management associated with an ACEC, if designated, may also protect wilderness characteristics.

Wild Horse and Burro Management

BLM will coordinate with AGFD and other affected interests during its evaluation of any proposed decisions or actions concerning burro management.

Monitoring related to the Biological Opinion for the southwestern willow flycatcher in the Alamo Herd Area (HA) will continue to be a cooperative effort. BLM will work with AGFD to determine if Land Health Standards are being met and if any additional monitoring is needed to make such a determination.

All burro-related activities will be conducted in a manner that ensures the safety of the burros and personnel involved.

BLM will continue to work collaboratively with AGFD to resolve burro-related issues.

Wild Burro Removals

All wild burros that are removed are made available for adoption through the Wild Horse and Burro Adoption Program.

Wild burros will be removed as nuisance animals whenever a safety problem becomes apparent (such as burros crossing highways, burro-related vehicle accidents, etc.). Removal of nuisance burros from private land is required when requested in writing from the landowner. Excess wild burros will be removed from the HMAs when the population exceeds the Appropriate Management Level (AML), as set by the Herd Management Area Plans.

Burros continuing to use public lands, even outside of a HA or HMA, as any part of their habitat remain protected under the Wild Horse and Burro Act. These burros will be removed by BLM when requested, or when a regular removal is scheduled.

Methods for burro removal include bait or water trapping, roping, helicopter drive trapping, and helicopter-assisted roping. The method will vary with the situation. Helicopter drive trapping is usually required for gathering larger numbers of wild burros. Bait trapping is normally used for private land removals or when smaller numbers are planned for removal.

Water Resources

Watershed Management

FLPMA defines BLM's multiple-use management mission to include protection of watersheds. FLPMA requires that public lands be managed to protect scientific, environmental, air and atmospheric, and water resources. FLPMA also requires that BLM develop land use plans to guide the Management Actions on these lands, and that land use plans comply with state and federal air, water, and pollution standards. In addition, BLM Manual 7000 and executive orders provide field guidance in managing soil, water, and air.

FLPMA requires compliance with the following laws:

- Soil Conservation and Domestic Allotment Act of 1935
- Watershed Protection and Flood Control Act of 1954

- Colorado River Basin Salinity Control Act of 1974
- Wild and Scenic Rivers Act of 1968
- National Environmental Policy Act of 1969
- Federal Pollution Control Act with amendments of 1972
- Clean Water Act of 1989
- Safe Drinking Water Act of 1977.

Water Resource Management Program

BLM's water resource program consists of the following mandates:

- To ensure the physical presence and legal availability of water on public lands.
- To ensure that those waters meet or exceed federal and state water quality standards for specific uses.
- To mitigate activities to prevent water quality degradation.

The water resource program is divided into three parts: water inventory, water rights, and monitoring.

BLM policy is to inventory all water resources on public lands it administers and to document and store this data in its Water Data Management System.

BLM policy on water is to file for water rights on all water sources on public and acquired lands in accordance with State of Arizona or California water laws. This water policy also requires BLM to file a request for a recommendation for use of the waters of the Lower Colorado River with either the State of Arizona or the Colorado River Board of California. Upon receiving a positive recommendation, BLM will enter an Interagency Agreement with BOR to legalize its use of Colorado River water. The Secretary of the Interior has given BOR authority to enter Colorado River contracts along the Lower Colorado River.

BLM policy is to monitor water quality to assess resource impacts from specific activities and to obtain baseline resource information.

Non-point source pollution abatement authority is addressed in Section 319 of the Federal Clean Water Act Amendments of 1987 and the State of Arizona Environmental Quality Act of 1986. BLM has agreements with both Arizona and California environmental departments regarding non-point source pollution controls and assures attainment of water quality to meet all designated beneficial uses. ADEQ monitors conditions and bi-annually publishes the status of water quality and any impaired waters.

Air Quality

The Clean Air Act of 1970 and the 1990 amendments govern air quality. The objective of the LHFO air resource program is to maintain and/or improve air quality as established by the National Ambient Air Quality Standards, achieve State Implementation Plan goals for non-attainment areas, and reduce emissions from point/non-point sources. The Mohave Desert Air Quality Management District covers the California lands within the planning area. Within Arizona, air quality in various portions of the planning area is regulated as follows:

Open Areas, Dry Washes, and Riverbeds: The control of airborne dust from open areas, dry washes, and river beds is addressed in Arizona Rules and Regulations for Air Pollution Control, R9-3-404 A-C.

Roadways and Streets: Regulation R9-3-405 A prohibits the use, repair, building, or rebuilding of roadways without taking reasonable dust abatement measures.

Mineral Tailings: Regulation R9-3-408 addresses prohibition on permitting or allowing construction on mineral tailings piles.

Fire Management: Regulations R9-3-402 and 403 direct BLM to follow permitting procedures before conducting any prescribed burning projects, to ensure that smoke from fires does not degrade air quality. Section 118 of the Clean Air Act (49.501 of the Arizona Laws Relating to Environmental Quality) charges ADEQ to protect the health and welfare of Arizona residents from adverse impacts of air pollution. Those wishing to conduct prescribed burns must contact ADEQ.

Law Enforcement

LHFO presently has two law enforcement rangers who report to the Field Office Manager. The current table of organization approved for LHFO includes one Field Staff Ranger and one Field Ranger.

The priorities of the law enforcement program include drug interdiction, homeland security, vandalism, illegal dumping, closure violations, occupancy trespass, wilderness violations, camping limit violations, arson, archaeological and historical site damage, vegetative damage and theft, OHV use violations, and human-caused wildland fires. The majority of the law enforcement activities are associated with the area's highly active recreation program and its year-round visitor use.

LHFO manages areas of important wildlife habitat that are a primary law enforcement concern. The protection of these resources includes monitoring camping activities, investigating human-caused wildland fires, enforcing seasonal closures of bighorn sheep habitat, and enforcing OHV restrictions. Thefts of cacti occur periodically in the Alamo Lake area. LHFO also maintains revegetation sites, habitat mitigation areas, and grow-out coves for endangered fish.

Law enforcement priorities are accomplished by rangers through routine patrols of high-use areas and known locations of repeated violations. Reports of violations by resource specialists and the public result in a significant portion of the investigative leads and enforcement actions by the ranger staff.

Numerous other agencies with law enforcement missions cooperate with BLM rangers on a wide variety of enforcement actions. These agencies include, but are not limited to, the Arizona Department of Public Safety, the California Highway Patrol, Bullhead City and Lake Havasu City Police Departments, Mohave and La Paz County Sheriff's Departments, San Bernardino County Sheriff's Department, USFWS, National Park Service, AGFD, California Department of Fish and Game (CDFG), and Arizona State Parks Department. Bureau of Reclamation law enforcement authority for all Bureau of Reclamation lands (613 DM 1) has been delegated to BLM.

The following topics represent program priorities that are present and of special significance to the law enforcement program. The list is not all-inclusive and is subject to change as conditions and emphases evolve.

Employee and Public Safety

Increased pressure from urban interface, growth in visitor use at recreation sites, and the escalation of anti-government sentiment has heightened the awareness of possible conflict in the field.

Confrontations between public land users are becoming more frequent. Gang activities in the recreation sites and backcountry areas have increased as evidenced by incidents of vandalism and graffiti at facilities and backcountry areas, by law enforcement contacts and third party reports. Public lands near urban areas provide relative isolation and have experienced an increase in criminal activities, including homicides, stolen vehicles, and the illegal disposal of household and commercial wastes.

The lower Colorado River corridor has received a steady increase in boating and camping recreation. This increase has been reflected in a growing number of boating accidents and problems related to alcohol and drug use. Increased use of the boat-in campsites has significantly increased the number of incidents involving alcohol, drug use, and natural resource destruction, requiring response from law enforcement.

With its warm weather and southern travel route, the lower Colorado River has a large transient population. These individuals commonly have criminal histories and present a threat to any public land users who might encounter them. The problem of transients has increased in past years in the Lake Havasu City, Needles, and Bullhead City areas.

Drugs and Controlled Substance Manufacture

LHFO has not had a significant drug problem relating to public lands. In a 5-year period, waste from methamphetamine lab operations has been recovered on public lands, and occasional reports of marijuana cultivation have been received. One such site was located. However, the remote nature of the managed lands combined with infrequent

patrols presents a significant opportunity for drug operations to exist without detection. There is also personal use of drugs by public land users in both developed and undeveloped recreation sites within the LHFO management area. This problem is dealt with as encountered in the routine ranger patrols of these areas.

Hazardous Materials

Hazardous materials incidents in the LHFO management area have resulted from leaking underground storage tanks, mining sites, occupancy trespasses, drug labs, wire burning sites, industrial waste, and illegal dump sites.

Although illegally dumped materials are not routinely classified as hazardous materials, the problem of discarded used tires, household trash, and commercial waste and materials has increased as the result of increased fees at county and private landfills and transfer stations. Also of concern are incidents of unexploded military ordnance and explosives from abandoned mining operations.

- BLM would educate the public about the risks associated with abandoned mine land sites and unexploded ordnance through signs, bulletin boards, and/or kiosks.
- Within 1 year, LHFO would have a contingency plan in place and up to date for emergency response to hazardous materials incidents.
- When the current cleanup of hazardous materials sites is completed including Pacific Gas and Electric Company Topock and Big Bend Resort leaking underground storage tank, BLM would continue to monitor sites for residual hazardous conditions as needed.
- BLM would clean up any hazardous materials that are illegally dumped on public land.

Abandoned Mine Lands

As funding is available, the Management Actions listed below will continue:

- Inventory abandoned mine lands in high-use areas to determine mines that pose the greatest risk to public health and safety, and identify the sites that should be closed to protect biological and cultural resources. Through the information gathered from the inventories, BLM will attempt to close all mines within 0.25 mile of developed recreation areas, campgrounds, access roads, and trails that pose the greatest risk to visiting public and mines that have significant cultural and biological resources.
- Assess the impacts to waters of Arizona and California from abandoned mines, tailings, or mineral deposits within 1 mile of surface waters and reclaim sites presenting water quality concerns.
- Method of closure would vary and be identified during site-specific NEPA analysis.

- LHFO will inspect abandoned mine land sites to identify all physical hazards presenting a safety risk to the public and take appropriate action to mitigate any hazards.
- Take steps to prevent public access to abandoned mine land contaminated areas.
- Notify the public of the conditions at an abandoned mine land site in close proximity to populated areas.
- Where surveys indicate the potential for important bat habitat, BLM and its partners will take appropriate actions, such as bat gates, to preserve the habitat while addressing the public hazards.
- In cases where abandoned mine land remediation actions may affect biological, cultural or historical resources, the impacts are mitigated by recording the resources, relocating the resources, or stabilizing significant resources, consistent with reducing the threat to public health and safety.

Public Education and Interpretation

General information on the planning area may be obtained from LHFO. Some information is also presented in cooperatively funded maps and brochures. Supplies of brochures at visitor centers vary throughout the year. The current trend is to scan all brochures and maps onto computers, allowing information to be printed from computer web sites to replace material traditionally printed. The public is increasingly accessing these sites. The public generates significant amounts of information on the planning area through internet sites, guide books, and other publications. The exact amount, accuracy, or contents of such information is unknown, nor is it known if this information supports management objectives.

The public may also obtain OHV maps and general guides by mail or by picking up copies at LHFO, which is located at 2610 Sweetwater Avenue, Lake Havasu City, AZ 86406. Brochures or maps are occasionally available at the historic Swansea Townsite or given out by volunteers. The main information source for most visitors to the planning area consists of displays on kiosks.

LHFO presents informal and formal interpretive/educational programs for schools, universities, professional, and other groups. Often the requesting parties are professional organizations conducting seminars, field trips, or large conferences. Many informal requests for presentations are received with little notice, and BLM specialists may deliver formal or informal presentations depending on the time available for preparation.

Implementation and Monitoring

Implementation

Many LUP decisions are implemented or become effective upon approval of the RMP. Examples of such decisions include decisions on land health standards and Desired Future Conditions, land use allocation decisions, and all special designations such as

ACECs. Management actions that require additional site-specific project planning as funding becomes available will require further environmental analysis. Decisions to implement site-specific projects are subject to administrative review when such decisions are made.

BLM will continue to involve and collaborate with the public during implementation of this plan. Opportunities to become involved in the plan implementation and monitoring will include development of partnerships and community-based citizen working groups. BLM invites citizens and user groups within the planning area to become actively involved in implementation of plan decisions. BLM and citizens can collaboratively develop site-specific goals and objectives that mutually benefit public land resources, local communities, and the people who live, work, or play on the public lands.

Adaptive Management

Adaptive management is a formal, systematic, and rigorous approach to learning from the outcomes of management actions, accommodating change, and improving management. The process involves synthesizing existing knowledge, exploring alternative actions, and making explicit forecasts about their outcomes. Management actions and monitoring programs are carefully designed to generate reliable feedback and clarify the reasons underlying outcomes. Actions and objectives are then adjusted based on this feedback and improved understanding. Decisions, actions, and outcomes are also carefully documented and communicated to others, so that knowledge gained through experience is passed on, rather than being lost when individuals move or leave the organization.

This RMP implements an adaptive management strategy. This adaptive management process is a flexible process that generally involves four phases: planning, implementation, monitoring, and evaluation. As BLM obtains new information, it will evaluate monitoring data and other resource information to periodically refine and update desired conditions and management strategies. This approach ensures the continual refinement and improvement of management prescriptions and practices.

Administrative Actions

Although BLM's intent and commitment to accomplish Administrative Actions is generally addressed in RMP/EIS-level documents, such activities are neither at the level of the LUP nor management action decisions at the implementation level. Administrative actions are day-to-day activities conducted by BLM (often required by FLPMA) that do not require a NEPA analysis or decision by a responsible official to be accomplished. Examples of Administrative Actions include: mapping, surveying, inventorying, monitoring, collecting information needed such as research and studies, and completing project-specific plans or plans at the implementation level.

Some commercial and organized group uses requiring Special Recreation Permits (SRPs) have little to no resource impacts, user conflicts, or health and safety concerns, and require little monitoring. Examples of such uses are hunting outfitter and guide operations, motorized tours, photography tours, nature hikes, dual-sport rides, horseback

rides, and organized club campouts. Special stipulations for SRPs have been developed to protect natural resources, reduce user conflicts, and minimize health and safety risks. These stipulations are included with all authorized SRPs and must be followed to keep the permit valid (see Appendix H).

Final decisions for permit issuance will be based on other valid concerns, including the following:

- performance,
- other conflicting activities such as hunt seasons,
- BLM's ability to process the permit, or
- other unforeseen circumstances.

The permittee must also comply with any special allocations or restrictions. Proposed uses that do not meet the above criteria will be subject to further environmental analysis.

Requirements for Further Environmental Analysis

The proposed RMP/Final EIS is a programmatic statement describing the impacts of implementing the proposed LUP decisions and associated Management Actions described for the planning area.

LUP decisions that are implemented on approval of the RMP require no further environmental analysis or documentation. Whenever plans at the implementation level (e.g., ACEC management plans) are prepared, additional environmental analysis and documentation will be required. Individual Management Actions or projects requiring additional site-specific project planning as funding becomes available will require further environmental analysis.

Site-specific environmental analyses and documentation (including the use of categorical exclusions and determinations of NEPA adequacy, where appropriate) may be prepared for one or more individual projects, in accordance with management objectives and decisions established in the approved LUP. In addition, BLM will ensure that the environmental review process includes evaluation of all critical elements, including cultural resources and threatened and endangered species, and completes required USFWS Section 7 consultations and coordination with the State Historic Preservation Office (SHPO) in accordance with the BLM Cultural Resources National Programmatic Agreement and California and Arizona's BLM-SHPO protocols.

Interdisciplinary impact analysis will be based on this and other applicable EISs. If the analysis prepared for site-specific projects finds potential for significant impacts not already described in an existing EIS, another EIS or a supplement to an existing EIS may be warranted.

Upon providing public notice of a decision, supporting environmental documentation will be sent to all affected interests and made available to members of the public and other

interested parties on request. Decisions to implement site-specific projects are subject to administrative review when such decisions are made.

Monitoring and Studies

LHFO invites citizens to help develop an effective monitoring and evaluation plan that provides citizens opportunities to help monitor effects of implemented plan decisions on public land resources, local communities, and public land users. The following items require additional monitoring and studies after the implementation of the RMP:

1. **Travel Management Plan (route designation):** Following this EIS, BLM will designate routes by implementing the requirements contained in Executive Orders 11644 and 11989, as well as the Route Evaluation Tree which was developed for use within Arizona BLM (See Appendix I). LHFO will develop a sustainable network of routes in coordination with other agencies and the public. Routes will be designated from the route inventory as Open, Closed, or Limited based upon a route-by-route analysis considering conflict with other resource values. There will be a cyclic process to amend the network over time.
2. **Lands Acquisition:** This EIS identified criteria for lands that BLM would be interested in acquiring that would complement important resource values and further management objectives. With funding, BLM would engage in discussions with agreeable sellers to implement the decisions outlined in this EIS.
3. **Activity Level Plans:** Following the approval of the RMP, BLM will complete plans to outline the specifics of how best to manage and implement ACECs and SRMAs. BLM would follow NEPA requirements and involve the public.
4. **Coordinated Lake Management Plan (Lake Havasu Regional Management Area):** Because of the multi-jurisdictional nature of the issues, and the complexity of management on Lake Havasu, a special management condition is proposed, within this plan, to create the Lake Havasu Regional Management Area (LHRMA). This management area boundary is identical to the SRMA proposed in "Recreation Management." A Coordinated Lake Management Plan should be completed for LHRMA, which involves all of the involved jurisdictions and stakeholders. This would be a multi-year, multi-agency coordinated effort with the mission of defining the issues, responsibilities, and action items required to maintain a quality lake recreation experience, properly functioning habitat (both terrestrial and aquatic), and common management relationships and goals between the jurisdictions. Without the creation of LHRMA coordinated efforts, such as safety (including speed and excessive alcohol consumption) and pollution (e.g., water, air, and noise) will not be addressed because no single agency claims responsibility on the lake due to the numerous geographic boundaries. While BLM has limited authority on the lake surface, BLM could participate as a cooperating agency and provide data and information. BLM does have jurisdiction on the shorelines and lake bottom. This multi-agency effort could be tied into the Mohave Community College plan partnership on lake sedimentation. A steering committee for LHRMA should be developed.
5. **Carrying Capacity/Visitor use Study:** As part of a Coordinated Lake Management Plan, a carrying capacity study should be completed. The objectives of the study

may include: developing profiles of recreation users; measuring recreation use patterns at the lake and associated shorelines; measuring visitor expectations, preferences and demand, perceptions of existing conditions, and satisfaction; and examining visitor opinions about lake management. Equally as important would be establishment of a cooperative expert group to define an aquatic monitoring design focused on recreational impacts to shoreline and aquatic habitats. The expert group would also determine hydrocarbon thresholds that may affect aquatic biota, and begin a process to characterize the rate of deposition and character of Lake Havasu sediments.

The study would provide a comprehensive model for looking at recreational carrying capacity to establish sustainable limits of use to protect both the recreation experience and the other resources. For example, boating use patterns can be measured through aerial and ground counts. Visitor data could be collected through a series of on-site and mail surveys of key user groups. One result of such studies could be a process for recreational use allocation.

6. **Endangered Species Monitoring:** The native fish of the Colorado River are endangered for many reasons. The endangered Yuma Clapper Rail inhabits emergent wetlands, and the southwest Willow Flycatcher occupies the water's edge in riparian forests. Each of these creatures potentially occupies this Colorado River segment. The primary cause for their endangerment is habitat modification, and regulation requires that their needs be studied to arrest their extinction. Therefore cooperative monitoring efforts are ongoing and should be increased on the river to enhance the success of adaptive management towards their continued survival.
7. **Wilderness Inventory:** Overflight photographs (perhaps via satellite) would continue following this EIS.
8. **Unexploded Ordnance:** BLM will continue to coordinate with the Department of Defense whenever unexploded ordnance is discovered in the planning area. The ordnance would be destroyed or removed immediately.
9. **Cultural Resource Monitoring:** Arizona Site Stewards and BLM volunteers would continue to monitor cultural resources for LHFO and assist in implementing actions for the program.
10. **Abandoned Mine Lands Inventory:** BLM will continue to conduct inventories as funding becomes available.

Interrelationships

BLM's LHFO conducts many activities that require coordination between BLM, State, or other Federal agencies. Coordination has been ongoing throughout this planning effort. Coordination is accomplished as a matter of course when implementing land use plan decisions through project development and site-specific activities.

As a part of this planning effort and in implementing on-the-ground activities, BLM executes ESA, Section 7 consultation with the USFWS. In 2001, BLM and USFWS finalized a consultation agreement to establish an effective and cooperative ESA, Section

7 consultation process. The agreement defines the process, products, actions, schedule, and expectations of BLM and USFWS on project consultation. One Biological Assessment will be prepared to determine the effect of Alternative 5 on all relevant listed, proposed, and candidate species, and associated critical habitat. The Biological Assessment will expose all expected environmental effects, conservation actions, mitigation, and monitoring, including analysis of all direct and indirect effects of plan decisions and any interrelated and interdependent actions. As this plan's decisions are implemented, actions determined through environmental analysis to potentially affect species listed or candidate species for listing under ESA will initiate more site-specific consultation on those actions.

Consultation with the Arizona and California SHPOs and all potentially affected Tribes is also conducted, in compliance with Section 106 of the National Historic Preservation Act (NHPA). BLM actions will also comply with other Federal environmental legislation, existing programmatic environmental analyses, land use plans, and vegetation treatment documents, such as the Clear Air Act, the Clean Water Act, and the Safe Drinking Water Act, and with State and local government regulations (Applicable Laws, Regulations, Policies, and Planning can be seen in Appendix B).

The Sikes Act (16 U.S.C. 670 et seq.) authorizes the Department of the Interior, in cooperation with State agencies responsible for administering fish and game laws, to plan, develop, maintain, and coordinate programs for conserving and rehabilitating wildlife, fish, and game on public lands within its jurisdiction. The plans must conform to overall land use and management plans for the lands involved. The plans could include habitat improvement projects and related activities and adequate protection for species of fish, wildlife, and plants considered endangered or threatened. BLM must also coordinate with suitable State agencies in managing State-listed plant and animal species when the State has formally made such designations.

The Bureau of Land Management is responsible for management of wildlife habitats on public lands, while the Arizona Game and Fish Department (AGFD) and California Department of Fish and Game (CDFG) are responsible for managing wildlife populations and game harvest. Continued efforts would be made to coordinate with AGFD and CDFG for opportunities to enhance wildlife habitat, species diversity, and riparian health. Coordination occurs between the agencies on management plans and activities to achieve the optimum health of wildlife species and populations. Currently, coordination efforts are conducted consistent with a statewide Memorandum of Understanding between the agencies. In addition, a Memorandum of Understanding has been signed giving Arizona Game and Fish Department cooperating agency status on current Resource Management Plan efforts in Arizona. To further promote interagency coordination, a Cooperative Agreement was signed between the agencies, establishing a liaison position in the Arizona Game and Fish Department. This liaison is assigned coordination responsibility on all ongoing land use plans and spends a portion of their work schedule in the Arizona State Office.

Regional transportation planning and construction of roadways and highways is generally conducted by State or regional agencies, such as Arizona Department of Transportation, county departments of transportation, and city transportation departments. When these agencies plan and develop roadways that cross public lands, BLM is involved in their design and contributes to environmental impact analysis. In that process, BLM will coordinate with the responsible agency to develop design features that minimize the

fragmenting effect of the planned roadway. BLM will work with the responsible agency to evaluate and incorporate safe and effective wildlife crossings to ensure long-term species viability and maintaining habitat connectivity. Where planned roadways potentially fragment other resources, such as (but not limited to) recreation routes or trails, grazing allotments, or mining operations, BLM will work with the responsible agency to provide continued connectivity for those purposes as well. BLM will also work with the agency to provide continued safe access to public lands from any developed roadway for recreation and other public land users.

Table 2-58. Comparison of Impacts by Alternative

Environmental Elements	Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
Soil					
From Recreation	Proposed development and use would increase soil erosion and impact vegetation. Impairment of beneficial surface water uses probable for episodes in short term, and chronically into long term.	Development of SRMAs will decrease soil disturbance and improve conservation once complete; existing soil compaction, erosion and sediment impacts may persist into long term.			
From Lands and Realty	Impacts to soil resources would be to a greater magnitude and extent than the PA.	A 40% reduction in disposal land and fewer corridors would reduce soil impacts proportionally relative to the PA.	A 48% increase in disposal lands would increase soil impacts proportionally, and potentially impair surface water quality.	56,715 acres of land disposal and 3 new corridors will increase disturbed soil, erosion and sediment to waterways.	
From Transportation & Public Access	Soil Disturbance would have occurred at an accelerated rate relative to other alternatives.	Route designation will decrease new soil disturbance While historic soil problems will persist.			
Water					
From Recreation	Would have expanded Colorado River shoreline development without interdisciplinary planning, potentially impacting both surface and groundwater quality and quantity	Current impacts to surface water resources would be resolved through the development of recreation plans that will sustain all surface water beneficial uses. Until those plans are implemented, some high use Colorado River areas may experience periods of surface water quality impairment.			
From Lands and Realty	Fewer disposal acres combined with fewer utility corridors and	Although impacts to water resources would still occur they would	Disposal of lands, new ROWs and new corridors will fuel growth along Colorado River that will impact surface and ground water quality and quantity for consumptive and non-consumptive uses.		

Table 2-58. Comparison of Impacts by Alternative

Environmental Elements	Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
	ROWs would produce fewer water resource impacts than Alternative 5.	be at a reduced rate when compared to Alternative 5			
From Transportation & Public Access	Roads and trails could have still been designated, and impacts to water resources would be similar to Alternative 5	Route Designation will decrease the rate of new watershed soil disturbance from vehicle routes, but it will not reduce the existing accelerated rate at which sediment is generated from the historically disturbed soils of existing routes.			
		Air			
From Recreation	Ambient air quality standards would have been progressively exceeded along the Colorado River during periods of high use. Dust would also increase with decreased visibility down wind.	Concentrated emissions from vessels and vehicles, plus amplified cumulative noise will be minimized through coordinated Special Recreation Management Plans.			
From Transportation & Public Access	Fugitive Dust generated from OHV SRMAs may become a growing concern. Ambient air standards within BLM control should remain in compliance.				
Lands and Realty	Air resource concerns are similar to Alternative 5.	Significant reductions to disposed lands and other actions would substantially reduce air resource concerns.	Air resource concerns are similar to Alternative 5.	Air resource concerns are similar to Alternative 5.	Development of disposal lands and corridors will add to fugitive dust levels that could degrade local air quality for the short term. Lands actions that lead to expanded recreational

Table 2-58. Comparison of Impacts by Alternative

Environmental Elements	Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
					development in the River Corridor could result in periods of isolated air quality violations due to vessel and/or vehicle congestion
Biological Resources					
From Cultural Resources	Cultural resources management would generally protect biological resources.				
	1 Public Use site has some impacts to bat species.	6 Public Use sites may cause some additional impacts to wildlife species	11 Public Use sites may cause additional impacts to wildlife species in that specific area.	8 Public Use sites may cause additional impacts to wildlife species in that specific area.	Increased visitation at 8 sites may cause additional impacts to wildlife species in the specific area.
From Grazing	Direct impacts from grazing on plant cover and biomass can be expected along with decreases in shelter sites, and decrease in the diversity and abundance of native species.	Offers more protection to the area's existing species composition, thus providing increased wildlife forage and species diversity.	Offers no protection for the area's existing species composition, thus providing decreased wildlife forage and species diversity.	Direct impacts from grazing on plant cover and biomass can be expected along with decreases in shelter sites, and decrease in the diversity and abundance of native species.	
From Lands and Realty	50,141 acres identified for disposal: Similar impacts to Alternative 5	36,950 acres identified for disposal. Similar impacts to Alternative 5	76,014 acres identified for disposal. Similar impacts to Alternative 5	59,522 acres identified for disposal: Disposal of identified property near Bullhead City would eliminate the largest and most contiguous known population of desert tortoises.	
	The 6 multiple-use utility corridors were never physically	The 14 multiple-use utility corridors were never physically	The 16 multiple-use utility corridors were never physically	The 15 multiple-use utility corridors were never physically	The 15 multiple-use utility corridors were never physically

Table 2-58. Comparison of Impacts by Alternative

Environmental Elements	Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
	surveyed for special status species; therefore, impacts to special status species cannot be analyzed at this time.	surveyed for special status species; therefore, impacts to special status species cannot be analyzed at this time.	surveyed for special status species; therefore, impacts to special status species cannot be analyzed at this time.	surveyed for special status species; therefore, impacts to special status species cannot be analyzed at this time.	surveyed for special status species; therefore, impacts to special status species cannot be analyzed at this time.
From Minerals	Surface-disturbing activities would denude areas of vegetation, thereby reducing the amount of forage, cover, breeding habitat available for wildlife, cause segmentation of habitat and barriers to wildlife movement. Degree and intensity vary depending on the total acreage as identified.				Surface-disturbing activities would denude areas of vegetation, thereby reducing the amount of forage, cover, breeding habitat available for wildlife, cause segmentation of habitat and barriers to wildlife movement.
From Paleontological Resources	Paleontological Resources management would generally protect biological resources.				
From Recreation	Not specifically addressed in previous plans.	The creation of 7 SRMAs could have impacts to biological resources, especially, since some of them overlap Critical Habitat for T&E species.			
	Dead and down material provides nutrients for plant growth. Plant material removed from the ground at campsites can cause a decrease in shelter for various species including herpetofauna.	Campsites and surrounding area would have dead and down material to create nutrients for plant growth, increase in shelter for various species including herpetofauna	Plant material removed from the ground within 300 at campsites can cause a decrease in shelter for various species including herpetofauna.	Dead and down material provides nutrients for plant growth. Material removed from the ground at campsites can cause a decrease in shelter for various species including herpetofauna.	Dead and down material provides nutrients for plant growth. Plant material removed from the ground at campsites cause a decrease in shelter for various species including herpetofauna.

Table 2-58. Comparison of Impacts by Alternative

Environmental Elements	Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
	Not specifically addressed in previous plans.	Restricting target shooting to R&PP and commercial leases would protect biological resources.	Indiscriminate paintball and recreational shooting activities would impact wildlife by eliminating adequate forage, cover, breeding habitat, disrupting the solitude, ultimately displacing wildlife during the activity. Cumulatively, these activities would cause segmentation of habitat, potentially altering behavior, including breeding activities and cause barriers to wildlife movement.		
	Not specifically addressed in previous plans.	Restricting target shooting to R&PP and commercial leases would protect vegetation and wildlife habitat.	Target shooting increases noise and potentially alters behavior, including breeding activities of wildlife species.		
From Transportation and Public Access	The existing situation has impacted the Mojave Desert Tortoise as well as other plant and wildlife species.	Delaying the completion of the TMP for up to 5 years would allow for the proliferation of additional routes and the continued destructive impacts these new wildcat roads have on vegetation, fish, and wildlife. Routes cause destruction of soil stabilizers, soil compaction, reduced rates of water infiltration, increased wind and water erosion, noise, decrease abundance of wildlife populations and destruction of vegetation. Compaction of desert soil reduces the root growth of desert plants and makes it harder for seedlings to survive.			
From Biological Resources	The biological resources alternatives are created to provide protection for vegetation, fish and wildlife, and habitat.				
From Visual Resources	59% of the WHA is classified as VRM Class III and IV.	31% of the WHA is classified as VRM Class III and IV.	60% of the WHA is classified as VRM Class III and IV.	59% of the WHA is classified as VRM Class III and IV.	
From Wilderness Characteristics	No biological resources would be protected under this allocation.	Biological resources within the 197,821 acres identified for wilderness characteristics management would be protected.	No biological resources would be protected under this allocation.	Biological resources within the 41,590 acres identified for wilderness characteristics management would be protected.	
From Wild Horse and Burros	No new impacts are anticipated.	Managing for burros would improve forage and diversification of wildlife species within the area.			

Table 2-58. Comparison of Impacts by Alternative

Environmental Elements	Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
From Special Area Designations	Biological resources would be protected by special management of 1 ACECs containing 32,608 acres.	Biological resources would be protected by special management of 8 ACECs containing 138,987 acres. Backcountry Byways could potentially alter behavior, including breeding activities of wildlife species.	Biological resources would be protected by special management of 5 ACECs containing 37,484 acres. Backcountry Byways could potentially alter behavior, including breeding activities of wildlife species.	Biological resources would be protected by special management of 6 ACECs containing 77,825 acres. Backcountry Byways could potentially alter behavior, including breeding activities of wildlife species.	Biological resources would be protected by special management of 5 ACECs containing 74,554 acres. Backcountry Byways could potentially alter behavior, including breeding activities of wildlife species.
Fire Management					
From Lands and Realty	Lands Impacts include building more utilities, transportation corridors, and communications sites this would affect fire by increasing opportunities for accidental human-caused ignition.				
From Biological Resources	The impacts of biological resource management on fire suppression would consist of restrictions imposed on suppression strategies to protect priority habitat and species from disturbance from heavy equipment. Examples of these restrictions would be (1) prohibiting heavy equipment such as dozers in building fire lines and (2) restricting fire vehicles to existing roads.				
From Cultural Resources	Protecting cultural resources results in fire managers using Minimum Impact Suppression Tactics during suppression that might affect cultural resources. When implementing Minimum Impact Suppression Tactics, fire managers use the fewest fire suppression resources, and least-impacting tools and equipment to effectively manage and suppress fire.				
From Rangeland and Grazing	Livestock removing forage, especially light fuels can reduce the potential for fires. Livestock grazing however can reduce native species and encourage the growth of non-native plant species with higher fire frequencies.				
From Minerals Management	The Havasu Planning Area allows new mineral entry as well as existing mineral rights. The result is an increase in human activity and in the probability of human-caused fire ignitions.				
From Recreation	Allowing dispersed camping with few limitations could affect fire management by increasing the risk of accidental human-caused ignitions. Allowing target shooting anywhere would increase the potential for accidental human-caused ignitions. Shooting is a common cause of wildfire in some areas of the field office.				
From Transportation and Public Access	Route Designation could close routes used to access fires and used fire lines, thus complicating the suppression efforts.				

Table 2-58. Comparison of Impacts by Alternative

Environmental Elements	Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
Wild Horse and Burro Management					
From Lands and Realty	For the both Havasu-AZ and Alamo HMAs, no lands have been identified for disposal.	For the Havasu-AZ HMA, minimal impacts are anticipated due to the loss of approximately 1,044 acres of habitat. For the Alamo HMA no lands have been identified for disposal.	For the Havasu-AZ HMA, the AML would be adjusted due to loss of approximately 7,158 acres through disposal. For the Alamo HMA 1,078 acres are identified for disposal	For the Havasu-AZ HMA, the AML would be adjusted due to loss of approximately 2,535 acres through disposal. For the Alamo HMA 1,078 acres are identified for disposal	
From Rangeland Management/Grazing	Minimal impacts to wild burro management.	For the Havasu-AZ HMA, impacts would be minimal as most grazing use is ephemeral in nature. For the Alamo HMA, wild burro management would benefit from more forage available.	Minimal impacts to wild burro management.	Minimal impacts to wild burro management.	Minimal impacts to wild burro management.
From Wild Horse and Burro Management	For the Havasu-AZ HMA, impacts would be minimal. The HMA would include the entire HA. The AML would be 170. Burros would be removed due to safety, nuisance, and numbers in excess. For the Alamo HMA, impacts would be minimal. The HMA	For the Havasu-AZ HMA, the boundary would be adjusted to SR 95 north of Lake Havasu City. The loss of approximately 14,300 acres of habitat would require an adjustment of the AML to 166 burros. For the Alamo HMA, the acreage would be reduced by 94,441 acres.	For the Havasu-AZ HMA, impacts would be minimal. The HMA would include the entire HA. The AML would be 170. Burros would be removed due to safety, nuisance, and numbers in excess. For the Alamo HMA, the acreage available would be increased by	For the Havasu-AZ HMA, the boundary would be adjusted to SR 95 north of Lake Havasu City. The loss of approximately 14,300 acres of habitat would require an adjustment of the AML to 166 burros. For the Alamo HMA, the acreage would be reduced by 87,780.	For the Havasu-AZ HMA, the boundary would be adjusted to SR 95 north of Lake Havasu City. The loss of approximately 14,300 acres of habitat would require an adjustment of the AML to 166 burros. For the Alamo HMA, the boundary would be

Table 2-58. Comparison of Impacts by Alternative

Environmental Elements	Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
	would include the current HMA boundary. The AML would be 200 burros. Burros would be removed due to safety, nuisance, and numbers in excess.	As a result the AML would be adjusted to 156 burros.	11,246 acres since the boundary would be the same as the HA. AML would be reduced to 191 due to the removal of Alamo Wildlife Area.	Forage lost would result in the AML being adjusted to 156.	adjusted to exclude the Alamo Wildlife Area. The loss of approximately 13,700 acres would not require an adjustment of the AML, which would remain at 200 burros.
Cultural Resources					
From Cultural Resources	Protect 14 sites and areas allocated to Conservation for Future Use with increase management attention. Allocation of one (1) site to Public Use would increase the risk of vandalism and theft of artifacts resulting from increased visitation.	Protects 6 areas with many cultural resources (SCRMA) and 42 individual sites by allocation to Conservation for Future Use or Traditional Use with increase management attention. Allocation of six (6) sites to Public Use would increase the risk of vandalism and theft of artifacts resulting from increased visitation.	Protects 6 areas with many cultural resources (SCRMA) and 30 individual sites by allocation to Conservation for Future Use or Traditional Use with increase management attention. Allocation of eleven (11) sites to Public Use would increase the risk of vandalism and theft of artifacts resulting from increased visitation.	Protects 6 areas with many cultural resources (SCRMA) and 35 individual sites by allocation to Conservation for Future Use or Traditional Use with increased management attention. Allocation of eight (8) sites to Public Use would increase the risk of vandalism and theft of artifacts resulting from increased visitation.	
From Grazing	Cattle grazing at 17 allotments (five ephemeral) may result in displacement of surface artifacts, causing loss of site context, disturbance or destruction of features (e.g., intaglios), and	No impacts from grazing but impacts to cultural resources may occur as a result of removing grazing developments.	Cattle grazing at 17 allotments (five ephemeral) may result in displacement of surface artifacts, causing loss of site context, disturbance or destruction of features	Cattle grazing at 10 allotments (and five ephemeral) may result in displacement of surface artifacts, causing loss of site context, disturbance or destruction of features (e.g., intaglios), and similar impacts from large mammals trailing or congregating.	

Table 2-58. Comparison of Impacts by Alternative

Environmental Elements	Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
	similar impacts from cattle trailing or congregating.		(e.g., intaglios), and similar impacts from large mammals trailing or congregating.		
From Lands and Realty	Some residual cultural resource values would be lost, after mitigation, within 51,949 acres identified for disposal.	Some residual cultural resource values would be lost, after mitigation, within 34,159 acres identified for disposal. Phasing out of communication sites at Black Peak will reverse the negative impact to this sacred peak.	Some residual cultural resource values would be lost, after mitigation, within 83,475 acres identified for disposal. Phasing out of communication sites at Black Peak will reverse the negative impact to this sacred peak.	Some residual cultural resource values would be lost, after mitigation, within 56,715 acres identified for disposal. Phasing out of communication sites at Black Peak will reverse the negative impact to this sacred peak.	
From Minerals	Protection of cultural resources within 447,611 acres restricted from mineral development for mineral material disposal, 24,112 acres restricted with no surface occupancy for mineral leases and 1766 acres recommended for mineral withdrawal.	Protection of cultural resources within 542,821 acres restricted from mineral development for mineral material disposal, 262,481 acres restricted with no surface occupancy for mineral leases and 633 acres recommended for mineral withdrawal.	Protection of cultural resources within 240,931 acres restricted from mineral development for mineral material disposal, 69,123 acres restricted with no surface occupancy for mineral leases and 200 acres recommended for mineral withdrawal.	Protection of cultural resources within 447,422 acres restricted from mineral development for mineral material disposal, 113,910 acres restricted with no surface occupancy for mineral leases and 633 acres recommended for mineral withdrawal.	Protection of cultural resources within 299,802 acres restricted from mineral development for mineral material disposal, 69,123 acres restricted with no surface occupancy for mineral leases and 633 acres recommended for mineral withdrawal.
From Recreation	Recreation management that encourages a concentration of recreational users has the potential to impact cultural resources located in the areas.	Recreation management that encourages a concentration of recreational users has the potential to impact cultural resources located in the areas.	Recreation management that encourages a concentration of recreational users has the potential to impact cultural resources	Recreation management that encourages a concentration of recreational users has the potential to impact cultural resources located in the areas. Impacts include, but are not limited to, surface artifact theft and breakage, artifact displacement, vandalism, and unauthorized digging for artifacts. Collection of dead and down firewood within the	

Table 2-58. Comparison of Impacts by Alternative

Environmental Elements	Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
	Impacts include, but are not limited to, surface artifact theft and breakage, artifact displacement, vandalism, and unauthorized digging for artifacts. Collection of dead and down firewood within the vicinity (100 yards) of a dispersed campsite would have the potential to disturb any sites within the same area.	Impacts include, but are not limited to, surface artifact theft and breakage, artifact displacement, vandalism, and unauthorized digging for artifacts.	located in the areas. Impacts include, but are not limited to, surface artifact theft and breakage, artifact displacement, vandalism, and unauthorized digging for artifacts. Collection of dead and down firewood within the vicinity (300 feet) of a dispersed campsite would have the potential to disturb any sites within the same area.	vicinity (100 feet) of a dispersed campsite would have the potential to disturb any sites within the same area.	
From Transportation and Public Access	Some residual cultural resource values would be lost, after mitigation, within 2602 acres identified as 'open'.				
From Biological Resources	In general, biological resources management will protect cultural resources.				
From Fire	Direct impacts from prescribed or wild land fire would include damage or destruction of sites or artifacts. Impacts from fire suppression activities will vary depending on the mechanical and/or chemical suppression methods used				
From Wilderness Characteristics	No cultural resources would be protected under this allocation.	Cultural resources within the 197,821 acres identified for lands with wilderness characteristics management would be protected.	No cultural resources would be protected under this allocation.	Cultural resources within the 41,590 acres identified for lands with wilderness characteristics management would be protected.	
From Wild Horse and	Burros tend to congregate at water sources and may displace artifacts (vertically or horizontally) at those cultural sites near water				

Table 2-58. Comparison of Impacts by Alternative

Environmental Elements	Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
Burros	sources.				
From Special Area Designations	Cultural resources will be protected by special management at one ACEC containing 32,608 acres. Sites within designated Wilderness are generally protected from damage.	Cultural resources will be protected by special management at 9 ACECs containing 138,987 acres. Sites within designated Wilderness are generally protected from damage.	Cultural resources will be protected by special management at 5 ACECs containing 37,484 acres. Sites within designated Wilderness are generally protected from damage.	Cultural resources will be protected by special management at 6 ACECs containing 77,825 acres. Sites within designated Wilderness are generally protected from damage.	Cultural resources will be protected by special management at 5 ACECs containing 74,554 acres. Sites within designated Wilderness are generally protected from damage.
Paleontological Resources					
From Lands and Realty	Loss of paleontological resources within 51,949 acres identified for disposal.	Loss of paleontological resources within 34,159 acres identified for disposal	Loss of paleontological resources within 83,475 acres identified for disposal.	Loss of paleontological resources within 56,715 acres identified for disposal	
From Minerals	Mining activities for locatable minerals and removal of saleable mineral have the potential to disturb or destroy paleontological resources.				
From Paleontological Resources	None identified	None identified	Identification of locations of invertebrate or plant fossils to facilitate collection by the pubic will result in the loss of these resources.	None identified	
From Recreation	Development of new recreation facilities or improvement at existing facilities have the potential to impact paleontological resources due to ground disturbing activities if fossils are present				
From Transportation and Public Access	Compaction from vehicles has the potential to crush and destroy fossils located at or near the surface.				
From Biological	Development or rehabilitation of springs, seeps, riparian areas, or wetlands have the potential to impact fossils at or below the ground surface. Fossilized remains exposed at or immediately below the ground surface could be damaged or destroyed by manual or				

Table 2-58. Comparison of Impacts by Alternative

Environmental Elements	Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
Resources	mechanical vegetation removal/treatments.				
From Fire	Exposed fossils or those near the surface would be subject to scorching or cracking by wild land fire. Mechanical suppression activities have the potential to damage or destroy significant paleontological resources.				
From Special Area Designations	Paleontological resources within designated Wilderness are generally protected from damage but scientific recovery is hampered by restrictions in Wilderness. Localities within the designated ACECs would be protected.				
	Special Area Designation				
From Cultural Resources	Generally Management Actions for Cultural Resources would enhance or protect the values or features for which special areas are designated.				
From Grazing	Impacts to the naturalness of an area by grazing activities would be limited by range management's Standards and Guidelines.				
From Lands and Realty	Acquisition of inholdings limits the possibility of private development, which could impact the designating values of those areas. Construction of ROWs has the potential to diminish the values identified.				
From Minerals	Mining activities for locatable minerals and removal of saleable mineral have the potential to disturb or destroy identified resources within the designated ACECs.				
From Recreation	Recreational shooting and the trash left by this type of use are currently impacting locations proposed for ACEC designation. The biggest impacted sites are all close to population centers.				
From Transportation and Public Access	Transportation and public access management will impact resource values for which special areas are designated. This will vary based on the number of miles designated open.				
From Biological Resources	In General the decisions in biological resources management enhance protection of ACECs, Wilderness values, WSA and Back-Country Byways. Vegetation removal/treatments or riparian area improvements could temporarily impact Wilderness and ACEC values.				
From Fire	Mechanical suppression activities would have a temporary but adverse effect upon wilderness users and wilderness values.				

Table 2-58. Comparison of Impacts by Alternative

Environmental Elements	Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
From Visual Resources	None identified				When VRM is used as a tool to guide the designing and planning of actions on public lands, these future actions could impact designating values for ACECs and Back Country By-ways. Impacts will vary based on VRM classes.
From Wild Horse and Burros	The current impacts of vegetation damage, soil and vegetation trampling in gathering areas, and trailing would continue to diminish the natural setting in localized parts of WAs, and ACECs, especially near water sources and in canyons.				
From Special Area Designations	There would be no impacts from Special Designation to WAs, WSAs, or the nomination of Bill William River as part of the National Wild and Scenic River System. Management of the one ACEC would protect the values identified on 32,608 acres.	There would be no impacts from Special Designation to WAs, WSAs, or the nomination of Bill William River as part of the National Wild and Scenic River System. Designation of 9 ACECs would protect the values identified on 138,987 acres.	There would be no impacts from Special Designation to WAs, WSAs, or the nomination of Bill William River as part of the National Wild and Scenic River System. Designation of 5 ACECs would protect the values identified on 37,484 acres.	There would be no impacts from Special Designation to WAs, WSAs, or the nomination of Bill William River as part of the National Wild and Scenic River System. Designation of 6 ACECs would protect the values identified on 77,825 acres.	There would be no impacts from Special Designation to WAs, WSAs, or the nomination of Bill William River as part of the National Wild and Scenic River System. Designation of 5 ACECs would protect the values identified on 74,554 acres.
VRM					
From all management actions regardless of resource	Impacts can be characterized as those allocations or actions that result in loss, degradation of form, line, contrast texture, or color of the landscape on public lands, beyond the limits permitted or established as visual resource objectives for a specific area of public land. All implementation actions for this RMP, or any action through NEPA would seek by design or mitigation to meet the visual resource class objective set by this RMP for a specific location.				
Wilderness Characteristics					

Table 2-58. Comparison of Impacts by Alternative

Environmental Elements	Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
From Cultural Resources	Archaeological sites may require protective actions. These actions could include permanent fencing or other types of barriers.				
From Grazing	NA	There would be no livestock grazing authorized under this alternative. Fences and other grazing structures and associated visual impacts could be removed or rehabilitated enhancing wilderness characteristics.	NA	Grazing would continue on lands with wilderness characteristics. Additional water or fencing, which may be needed over the life of this plan, could decrease wilderness characteristics on public lands.	
From Lands and Realty	Land disposals could impact 1200 acres and utility corridors could impact 16,410 acres of lands identified in Alternative 2 but no impacts are identified for lands allocated for wilderness characteristics in Alternative 4. Wilderness characteristics would not be criteria for acquisition including split estate.	Utility corridors could impact 19,014 acres of lands identified in Alternative 2, no impacts as identified in Alternative 4 for wilderness characteristics. Wilderness characteristics would be criteria for acquisition including split estate.	Land disposals could impact 1200 acres and utility corridors could impact 19,014 acres of lands identified in Alternative 2 but no impacts identified for Alternative 4 for wilderness characteristics Wilderness characteristics would be criteria for acquisition including split estate.	Utility corridors could impact 19,014 acres of lands identified in Alternative 2, no impacts as identified in Alternative 4 for wilderness characteristics. Wilderness characteristics would be criteria for acquisition including split estate.	No impacts due to disposals are anticipated. Acquisition of inholdings and private minerals (split estate) would enhance management for these lands.

Table 2-58. Comparison of Impacts by Alternative

Environmental Elements	Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
From Minerals	NA	Mining activities for locatable or leasable minerals have the potential to disturb values identified.	NA	Mining activities for locatable or leasable minerals have the potential to disturb values identified.	Mining activities for locatable or leasable minerals and removal of saleable mineral have the potential to disturb values identified.
From Recreation	NA	Allocations under Alternative 2 for wilderness characteristics include public lands around Crossman Peak. An estimated 38% of lands assessed for wilderness characteristics in this region also fall within Havasu Urban Special Recreation Management Area. Management objectives for these zones have the potential of directly impacting the opportunity for unconfined recreation experiences.	NA	Recreational management within the Extensive Recreation Management Area would be strictly custodial and minimal in nature, such as signing, to maintain the recreational experience as inventoried. While not directly impacting wilderness characteristics these custodial management actions would not always enhance wilderness characteristics on public lands.	
From Transportation and Public Access	NA	Under this alternative the areas allocated for maintaining wilderness characteristics would be designated limited to administrative uses only. This would	NA	Under this alternative the areas allocated for maintaining wilderness characteristics would be limited to the existing 17 miles of routes found in these areas. A visual impact will be the required signing needed to assure that vehicles stay on designated routes causing a potential impact or reduction to the naturalness of areas allocated for	

Table 2-58. Comparison of Impacts by Alternative

Environmental Elements	Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
		affectively close 180 miles to the general public use.		wilderness. An impact on wilderness characteristics is the decision that would allow motorized vehicles to pull off a designated route 100 feet of the centerline for camping.	
From Biological Resources	NA	73% of public lands allocated to maintain wilderness characteristics would also be allocated as WHAs.	NA	In general the decisions in biological resources management enhance protection of lands with wilderness characteristics. 88% of public lands allocated to maintain wilderness characteristics would also be allocated as WHAs.	
From Fire	NA	Impacts from fire suppression activities will vary depending on the mechanical and/or chemical suppression methods used. Impacts from mechanical fire suppression activities would include potential disturbance of naturalness of an area and temporary loss the opportunity for solitude and unconfined recreation.	NA	Impacts from fire suppression activities will vary depending on the mechanical and/or chemical suppression methods used. Impacts from mechanical fire suppression activities would include potential disturbance of naturalness of an area and temporary loss the opportunity for solitude and unconfined recreation.	
From Visual Resources	NA	Impact to wilderness characteristics would be the amount of change to line, form, and color that management objectives would incorporate in designing of actions on publics	NA	Impact to wilderness characteristics would be the amount of change to line, form, and color that management objectives would incorporate in designing of actions on publics lands allocated to maintain wilderness characteristic.	

Table 2-58. Comparison of Impacts by Alternative

Environmental Elements	Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
		lands allocated to maintain wilderness characteristic.			
From Wilderness Characteristics	NA	Alternative 2 would provide low-impact recreation opportunities and protection from mineral development, as well as protection from new rights-of-way and vehicle uses, thereby enhancing protection for any wilderness characteristics located within the seven areas identified under this alternative, totaling 197,822 acres.	This alternative does not specifically allocate any public lands to maintain or enhance these characteristics	Due to the prescriptions associated this allocation for wilderness characteristics, indirect impacts to public lands outside these areas may result as adjacent lands are exposed to more intensive uses.	
From Wild Horse and Burros	NA	Limiting number of wild burros within herd management areas would enhance wilderness characteristic	NA	Limiting number of wild burros within herd management areas would enhance wilderness characteristic	
From Special Area Designations	NA	Protection for those public lands within ACECs would include and support the enhancement of wilderness characteristics.			

Table 2-58. Comparison of Impacts by Alternative

Environmental Elements	Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
Socioeconomics					
Lands and Realty Management	BLM's lands program continues as it has in the past. The BLM would attempt to acquire 65,600 acres from willing sellers and would dispose of about 51,949 acres. Other land management tools and programs continue as they have in the past.	Impacts would be similar to those identified for Alternative 5. They differ only by degree depending upon the amounts of land disposed of and acquired.	Impacts would be similar to those identified for Alternative 5. They differ only by degree depending upon the amounts of land disposed of and acquired.	Acquisition and disposal of lands contribute in a positive manner to the overall goal of providing for easier and more effective land and resource management and provide positive benefits for the public. About 51,949 acres are available for sale, exchange, R &PP leasing, and patent. Other lands and mineral rights are identified for acquisition by purchase, exchange, etc. and benefit various federal programs and result in long-term, non-monetary benefits for the public. Other land management tools and programs (e.g., R&PP leases, payment-in-lieu-of-taxes, etc.) continue to be used to provide positive benefits for the public.	
Rangeland Management/Grazing	BLM's grazing program continues as it has in the past. Alternative 1 allows a maximum of 14,051 Animal Unit Months (AUM) of grazing on 17 allotments with 1,235,573 acres) open to grazing. Grazing is prohibited on 211,022 acres. Only a small number of ranching firms are affected.	All LHFO lands are closed to grazing and this reduces the available supply by a maximum 14,051 AUMs. Only a small number of ranching firms are affected.	BLM's grazing program continues as it has in the past. Alternative 1 allows a maximum of 14,051 Animal Unit Months (AUM) of grazing on 17 allotments with 1,235,573 acres) open to grazing. Grazing is prohibited on 211,022 acres. Only a small number of ranching firms are affected.	This alternative is similar to the No Action Alternative, except for closing one more ephemeral allotment. Grazing occurs on 1,121,829 acres and is prohibited on 237,936 acres. The permitted use is the same, 14,051 AUMs. No ranching firms are affected, since the proposed closed allotment is currently not under permit.	
Recreation Management	The No Action Alternative represents management of LHFO resources with the continuation of current	Alternative 2 emphasizes resource protection, which is a change from current management practices.	Alternative 3 emphasizes resource use, which is a change from current management practices. Impacts for	Alternative 4 seeks a balance between maximizing use and maximizing protection of LHFO resources.	Alternative 5 improves the recreation program while protecting resources. Management actions

Table 2-58. Comparison of Impacts by Alternative

Environmental Elements	Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
	management, policies, practices, and programs. BLM's recreation program continues as it has in the past.	Impacts for recreation, special recreation permits, and concessions are the same as for Alternative 5. Vending is eliminated from the Lake Havasu SRMA with some loss of jobs and income.	recreation, special recreation permits, and concessions are the same as for Alternative 5. Vending is allowed within the Lake Havasu SRMA. A permitting process provides some control but many problems are not adequately resolved.	Impacts are the same as for Alternative 5.	and Land Use Allocations tend toward favoring a higher degree of protection for the natural resource base, upon which recreation depends, verses higher levels of visitor use and development that is more intensive. Much of what this alternative addresses specifically are items that were not addressed in the No Action Alternative. As a result, Alternative 5 provides more guidance and direction for LHFO and the public than previously available. Management and oversight of special recreation events, concessions, and vending is improved.
Minerals Management	BLM's minerals program continues as it has in the past.	Mineral development would be the most restricted under this alternative because the emphasis is resource protection. Nearly 40%	There is increased flexibility and more development for resource use. The mining industry would be under less constraint	Alternative 4 seeks a balance between use and protection of LHFO resources. One-third of the field office closed to mineral material	Alternative 5 provides resource protection for the most sensitive areas, while leaving much of the field office open to mineral

Table 2-58. Comparison of Impacts by Alternative

Environmental Elements	Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
		of the planning area would be closed to mineral material development and 15% of the field office would have a no surface occupancy stipulation for mineral leasing. This may impact communities in need of mineral materials for development.	regarding exploration and development of mineral resources when compared to the No Action Alternative.	development and only 4% of the area has a no surface occupancy stipulation for mineral leasing. This alternative is still somewhat restrictive to mineral development.	development. This should help to increase community access to minerals for development.
Transportation and Public Access	Many transportation and access issues were not addressed in the past. The No Action Alternative is different than all the action alternatives in that there is about 396,000 acres that are not classified regarding OHV use. Current uses and related impacts would continue. Most of the planning area is available for at least some level of OHV use.	A comprehensive program of transportation and public access quiet similar to Alternative 5 results in similar impacts. This alternative is similar to the No Action Alternative because it sets aside the least acreage for open OHV use, about 2,600 acres, and the amount closed to OHV use is approximately 126,000 acres.	A comprehensive program of transportation and public access quiet similar to Alternative 5 results in similar impacts. This alternative sets aside the second most acreage for open OHV use, about 8,456 acres. The amount closed to OHV use is approximately 121,000 acres.	Improved management of the transportation system on LHFO lands supports and benefits the public and local economy over the long run. This alternative sets aside the most acreage for open, cross-country OHV use, about 9,600 acres. The amount closed to motorized use is approximately 121,000 acres. All the rest of the lands are regulated to have some type of motorized use constraint. LHFO continues to be a popular area for OHV use, perhaps more so because of additional open areas, and this use contributes to the local tourism industry.	

Table 2-58. Comparison of Impacts by Alternative

Environmental Elements	Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
Recreation Management					
From Cultural Resources	Not specifically addressed	The allocation of six (6) SCRMAs would serve to enrich the recreation resource and experience by elevating management emphasis in these areas unless restrictive management prescriptions close the areas to public use.			
	There is no more impact than the current circumstances in carrying forward the existing management, policies, practices, and programs of this resource on recreation.	Impacts are the same/similar to Alternative 5; they differ only by degree depending upon the allocation of sites to uses other than Public. In this alternative 42 sites are allocated for other than public use.	Impacts are the same/similar to Alternative 5; they differ only by degree depending upon the allocation of sites to uses other than Public. In this alternative 30 sites are allocated for other than public use.	Allocating sites for purposes other than public use would limit recreational uses that could damage them. This alternative allocates 35 sites away from public use	
From Biological Resources	Facilities in riparian areas - The limitation on developing no new recreation facilities within the 100-year flood plain potentially reduce the flexibility in locating new facilities and diminish BLM's ability to use facilities as a tool to manage visitor use.	Facilities in riparian areas - The limitation on developing no new recreation facilities near riparian wetland areas or within the 100-year flood plain potentially reduce the flexibility in locating new facilities and diminish BLM's ability to use facilities as a tool to manage visitor use.	Facilities in riparian areas - Developing new recreation facilities an appropriate distance from riparian wetland areas could have less impact on recreation dependent upon the definition of appropriate.	Facilities in riparian areas - The limitation on developing no new recreation facilities near riparian wetland areas could have significant impact on recreation; specifically affect the Lake Havasu Shoreline, the option of relocating facilities would be impossible to manage and expensive to achieve. This alternative conflicts with the public demand and use pattern. This alternative would have	Facilities in riparian areas - Locating new recreation facilities away from riparian wetland areas when deemed incompatible potentially has the least impact on recreation resources.

Table 2-58. Comparison of Impacts by Alternative

Environmental Elements	Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
				the greatest impact.	
	Impacts are the same/similar to Alternative 5; they differ only by degree depending upon the number of wildlife corridors established, under this alternative, one corridor is identified, thus having the least impact.	Impacts are the same/similar to Alternative 5; they differ only by degree depending upon the number of wildlife corridors established, under this alternative, 15 corridors are identified, thus having the greatest impact.	Impacts are the same/similar to Alternative 5; they differ only by degree depending upon the number of wildlife corridors established, under this alternative, one corridor is identified, thus having the least impact.	The establishment of 6 wildlife corridors could have significant impacts to the recreational user by restricting activates within these areas. This alternative has the greatest impact on recreation.	
From Recreation Management	Not specifically addressed	The identification of 7 SRMAs elevates the management emphasis for these areas, thus providing greater attention to the resource needs of these locations.			
	Collection of dead and detached wood for campfires enhances the tradition public lands camp experience. Provisions must be made for a large collection area.	Prohibiting firewood collection reduced the quality for the traditional public lands camping experience and therefore has the greatest impact on recreation.	Collection of dead and detached wood for campfires enhances the tradition public lands camp experience. Provisions must be made for a large collection area.	Collection of dead and detached wood for campfires enhances the tradition public lands camp experience.	
	Not specifically addressed	Restricting Paintball activities on public lands reduces the public's abilities to engage in this activity.	Allowing Paintball activities beyond 1 mile of any established facilities decrease the manageability of these activities and as in some area will conflict with desired recreation settings. This has less impact than	Restricting Paintball activities on public lands reduces the public's abilities to engage in this activity.	

Table 2-58. Comparison of Impacts by Alternative

Environmental Elements	Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
			Alternative 5.		
	Matching local Target Shooting laws will increase manageability, consistence of rules and regulations and enhance public safety.	Prohibiting Target Shooting on public lands eliminated the opportunity to perform this traditional activity.	Matching local Target Shooting laws will increase manageability, consistence of rules and regulations and enhance public safety.		
From Special Area Designations	Impacts are the same/similar to Alternative 5; they differ only by degree depending upon the acreage designated. Under this alternative 32,608 acres designated as 1 ACEC	Impacts are the same/similar to Alternative 5; they differ only by degree depending upon the acreage designated. Under this alternative 138,987 acres designated between 8 ACECs	Impacts are the same/similar to Alternative 5; they differ only by degree depending upon the acreage designated. Under this alternative 37,484 acres designated between 5 ACECs	Impacts are the same/similar to Alternative 5; they differ only by degree depending upon the acreage designated. Under this alternative 77,825 acres designated between 6 ACECs	Designating 74,554 acres between 5 ACECs has potential impacts on recreation however the full extent is unknown and dependant on the management prescriptions outlined for these areas.
	The designation Backcountry byways would enhance interpretation and recreation opportunity for the highway traveler across public lands.				
From Wilderness Characteristics	Not specifically addressed	Impacts are the same/similar to Alternative 5; they differ only by degree depending upon the acreage designated. Under this alternative 197,821 acres are identified for wilderness characteristics management.	Not allocating lands for wilderness characteristics management potentially reduced the opportunity for primitive recreation settings within the field office.	Allocating lands for protection of wilderness characteristics places limits and restrictions on the activities that can occur within them, including the recreation opportunities provided. The level and degree of impact depends on the acreages defined for the allocations and the management prescribed. Under this alternative 41,590 acres are identified for wilderness characteristics management.	
From Visual Resource	Impacts are the same/similar to	Impacts are the same/similar to	Impacts are the same/similar to	Impacts are the same/similar to	Managing VRM can have impacts and

Table 2-58. Comparison of Impacts by Alternative

Environmental Elements	Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
Management	Alternative 5; they differ only by degree depending upon the amounts of land allocated to each VRM Class.	Alternative 5; they differ only by degree depending upon the amounts of land allocated to each VRM Class. This alternative has the most impact providing more acreage to the higher VRM classes.	Alternative 5; they differ only by degree depending upon the amounts of land allocated to each VRM Class. This alternative has the least impact providing less acreage to the higher VRM classes.	Alternative 5; they differ only by degree depending upon the amounts of land allocated to each VRM Class.	implications on both the recreation opportunities provided and recreation management. These include but are not limited to limitations on the locations and aesthetics of new facilities and the allocation of lands to different recreation uses. However VRM can also provide for enhanced recreation settings and opportunities. The level and degree of impact is dependant on the acreages defined for the different VRM classes.
Rangeland Management/Grazing					
From Lands and Realty Management	Through the potential disposal of approximately 36,750 acres of public rangelands, approximately 506 AUMs of permitted use would be lost.	Through the potential disposal of approximately 21,800 acres of public rangelands, approximately 291 AUMs of permitted use would be lost.	Through the potential disposal of approximately 50,850 acres of public rangelands, approximately 699 AUMs of permitted use would be lost.	Through the potential disposal of approximately 34,900 acres of public rangelands, approximately 480 AUMs of permitted use would be lost.	
From Grazing Use Allocations	Current grazing use would continue on 5 ephemeral allotments and 12 perennial/ephemeral	No grazing would be authorized in the Field Office. This would result in a loss of 14,051	Current grazing use would continue on 5 ephemeral allotments and 12 perennial/ephemeral	One ephemeral allotment would be retired. The annual authorized use would remain at 14,051 AUMs.	

Table 2-58. Comparison of Impacts by Alternative

Environmental Elements	Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
	allotments. Annual authorized use would be 14,051 AUMs.	AUMs.	allotments. Annual authorized use would be 14,051 AUMs.		
			Minerals Management		
Saleable Minerals	66 percent (894,890 acres) of the field office would remain open to mineral material disposal. Cactus Plain WSA, special management areas, priority wildlife habitat areas, the riparian area of the Three Rivers ACEC and Copper Basin Dunes OHV area would be restricted from mineral material disposals. Portions of these areas, mostly at lower elevations, have moderate to high potential for sand and gravel minerals and these resources would not be developed.	59 percent (799,680 acres) of the field office would remain open to mineral material disposal. Cactus Plain WSA, areas allocated for wilderness characteristics, bighorn sheep lambing grounds, desert tortoise category I habitat, riparian areas, ACECs, OHV areas, Lake Havasu SMRA and the SCRMAs will be restricted from mineral material disposals. Portions of these areas, mostly at lower elevations, have moderate to high potential for sand and gravel minerals and these resources would not be developed.	82 percent (1,101,564 acres) of the field office would remain open to mineral material disposal. Cactus Plain WSA and the Copper Basin Dunes OHV area will be closed to mineral material disposals. The bighorn sheep lambing grounds will have a seasonal time restriction for mineral material activity. Portions of these areas, mostly at lower elevations, have moderate to high potential for sand and gravel minerals and these resources would not be developed	66 percent (895,079 acres) of the field office would remain open to mineral material disposal. Cactus Plain WSA, areas allocated for wilderness characteristics, bighorn sheep lambing grounds, desert tortoise category I habitat, riparian areas, ACECs, OHV areas, Lake Havasu SMRA and the SCRMAs will be restricted from mineral material disposals. Portions of these areas, mostly at lower elevations, have moderate to high potential for sand and gravel minerals and these resources would not be developed.	74 percent (996,974 acres) of the field office would remain open to mineral material disposal. Cactus Plain WSA, desert tortoise category I habitat, riparian areas, Beale Slough and Bullhead Bajada ACECs, Swansea Townsite, OHV areas and the Aubrey Hills will be restricted from mineral material disposals. The bighorn sheep lambing grounds will have a seasonal time restriction for mineral material activity. Portions of these areas, mostly at lower elevations, have moderate to high potential for sand and gravel minerals and these resources would not be developed.
Leasable Minerals	24,112 acres are	262,481 acres are	69,123 acres are	113,910 acres are	69,123 acres are

Table 2-58. Comparison of Impacts by Alternative

Environmental Elements	Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
	restricted with a no surface occupancy stipulation, which includes 40 acres around springs in priority wildlife habitat areas, riparian areas (YRMP) and the riparian areas of the Three Rivers ACEC. There should be very little impact to leasable minerals because only the riparian areas in Mohave Valley are prospectively valuable for oil and gas; the other areas have no known potential.	restricted with a no surface occupancy stipulation which includes the Cactus Plain WSA, areas allocated for wilderness characteristics, 0.25-mile river corridor and riparian areas of the Three Rivers ACEC and 45,919 acres have a seasonal time restriction for bighorn sheep lambing grounds. There should be very little impact to leasable minerals because only the Colorado River in Mohave Valley is prospectively valuable for oil and gas; the other areas have no known potential.	restricted with a no surface occupancy stipulation that includes the Cactus Plain WSA, ¼ mile river corridor and riparian areas of the Three Rivers ACEC and 60,321 acres have a seasonal time restriction for the bighorn sheep lambing grounds. There should be very little impact to leasable minerals because only the Colorado River in Mohave Valley is prospectively valuable for oil and gas; the other areas have no known potential.	restricted with a no surface occupancy stipulation which includes the Cactus Plain WSA, areas allocated for wilderness characteristics, ¼ mile river corridor and riparian areas of the Three Rivers ACEC and 56,131 acres have a seasonal time restriction for bighorn sheep lambing grounds. There should be very little impact to leasable minerals because only the Colorado River in Mohave Valley is prospectively valuable for oil and gas; the other areas have no known potential.	restricted with a no surface occupancy stipulation that includes the Cactus Plain WSA, ¼ mile river corridor and riparian areas of the Three Rivers ACEC and 60,321 acres have a seasonal time restriction for the bighorn sheep lambing grounds. There should be very little impact to leasable minerals because only the Colorado River in Mohave Valley is prospectively valuable for oil and gas; the other areas have no known potential.
Locatable Minerals	1766 acres are recommended for withdrawal within the riparian areas of the Three Rivers ACEC and lands within the Bullhead Bajada. Portions these areas have moderate to high potential for locatable	633 acres are recommended for withdrawal within the Swansea Townsite, riparian areas of the Three Rivers ACEC, lands within the Bullhead Bajada and the incline railway. Most of these areas have	200 acres are recommended for withdrawal within the Swansea Townsite. This area has high potential for locatable minerals and these minerals would not be developed.	633 acres are recommended for withdrawal within the Swansea Townsite, riparian areas of the Three Rivers ACEC, lands within the Bullhead Bajada and the incline railway. Most of these areas have moderate to high potential for locatable minerals and these resources would not be developed.	

Table 2-58. Comparison of Impacts by Alternative

Environmental Elements	Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
	minerals and these resources would not be developed.	moderate to high potential for locatable minerals and these resources would not be developed.			
Lands and Realty Program					
Cultural Resources - Disposals	If lands identified for disposal contain cultural resources, mitigation measures may be developed to protect cultural resources. These mitigations measures may include having the BLM retain ownership to some or the entire parcel.				
Paleontological Resources	Not addressed in previous plans	Prior to the disposal of public land BLM is required to inventory the land. If a paleontological site(s) is found, mitigation measures may be developed to protect the site(s). These mitigations measures may include having the BLM retain ownership to some or the entire parcel.			
Rangeland Management/Grazing - Disposals	If lands identified for disposal occur within a grazing allotment the permittee will be notified of the proposed action and be given the option of signing the 2-year prior notification waiver. If the permittee does not sign the waiver the BLM may dispose of the property after the two year waiting period				
Biological Resources	No activities or projects that would jeopardize the continued existence of federally listed threatened or endangered plant or wildlife species, or species proposed for listing, would be permitted on BLM-administered lands. This may restrict and land disposal actions some and some Use Authorizations permits.				
Special Area Designations	None identified	Will prohibit the Lands and Realty program from issuing Use Authorization permits that go all the way through areas with Special Area Designations.			

Table 2-58. Comparison of Impacts by Alternative

Environmental Elements	Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
Transportation and Public Access					
From Cultural Resources	There is no more impact than the current circumstances in carrying forward the existing management, policies, practices, and programs of this resource on Transportation and Public Access.	Impacts are the same/similar as for the to Alternative 5; they differ only by degree depending upon the allocation of sites use other than Public. This alternative allocates the most sites away from public use and therefore has the greatest impact.	Impacts are the same/similar to Alternative 5; they differ only by degree depending upon the allocation of sites use other than Public. This alternative allocates the most sites to the public therefore having least impact.	Allocating sites for purposes other than public use has the potential to restrict in part or whole these areas from the public access. This alternative provides a balance allocating cultural sites to both public and more conservative uses.	
From Biological Resources	Carrying forward existing management, policy and practices has the least impact to Transportation	This alternative closes areas during specific use seasons for special status species and therefore provides the most restrictive management options having the greatest impact on the possible route network and the public's ability to access the lands.	This alternative protects against adverse impacts to species and initiated the closure of routes and as such is less restrictive than Alternative 2.	Various Biological decisions in this alternative influence the route designation process, highlighting areas of concern (WMAs, etc.) and as such will influence both public access and transportation when the route evaluation process is undertaken.	
	Impacts are the same/similar to Alternative 5; they differ only by degree depending upon the number of wildlife corridors established, under this alternative, one corridor is identified, thus having	Impacts are the same/similar to Alternative 5; they differ only by degree depending upon the number of wildlife corridors established, under this alternative, 15 corridors are	Impacts are the same/similar to Alternative 5; they differ only by degree depending upon the number of wildlife corridors established, under this alternative, one corridor is	The establishment of 6 wildlife corridors could have significant impacts transportation and public access by restricting transecting routes within these areas. This alternative has the greatest impact on recreation.	

Table 2-58. Comparison of Impacts by Alternative

Environmental Elements	Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
	the least impact.	identified, thus having the greatest impact.	identified, thus having the least impact.		
From Transportation and Public Access	No impacts are expected from this alternative.	Competition of a Travel management network within five years of the completion of this plan will implement route designation, therefore providing greater manageability and reduced resource impact from transportation and public access.			
From Wild Horse and Burro Management	No impacts are expected from this alternative.	The exclusion of some areas from HMAs would improve safety of on transportation system of both on and off road vehicles.	Continuing the HMA boundaries as the same as the HA boundary directly impacts the safety of wild burros and public land visitors.	The exclusion of some areas from HMAs would improve safety of on transportation system of both on and off road vehicles.	
From Grazing/Rangeland	Impacts in existence would continue though under this alternative, having similar impacts to Alternative 5 where public safety and rangeland improvements are concerned. This alternative has the most impact.	This alternative closes all grazing allotments. This alternative would have the least impact on transportation and public access and could potentially enrich the resource.	Impacts in existence would continue though under this alternative, having similar impacts to Alternative 5 where public safety and rangeland improvements are concerned. This alternative has the most impact.	Impacts of adjusting grazing allotments are limited to the safety hazard of animals crossing routes and the construction of rangeland improvements that intersect or disrupt Transportation routes and Public Access; this includes the perception of the ability to access.	
From Special Area Designations	No impacts are expected from carrying forward the previous management decisions.	Nine ACECs areas were specifically identified to protect cultural resources and biological resources Management actions to protect these designating values, especially specific cultural sites not allocated as Public,	Five ACECs areas were specifically identified to protect cultural resources and biological resources Management actions to protect these designating values, especially specific cultural sites not allocated as Public, may limit or constrain public	In ACECs specifically identified to protect cultural resources and biological resources Management actions to protect these designating values, especially specific cultural sites not allocated as Public, public access may be limited or constrained to	The designation of 5 ACECs to protect cultural and biological concerns has impacts on transportation and public access. The impacts are defined by the management prescriptions assigned to each of the ACECs.

Table 2-58. Comparison of Impacts by Alternative

Environmental Elements	Alternative 1 (No Action)	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (Preferred)
		may limit or constrain 7public access to public lands in these ACECs.	access to public lands in these ACECs.	public lands.	
	No further impacts are expected from carrying forward the previous management decisions.	Impacts are the same/similar to Alternative 5; they differ only by degree depending upon the number of backcountry byways established, under this alternative, one byway is identified, thus having the least impact.	Impacts are the same/similar to Alternative 5; they differ only by degree depending upon the number of backcountry byways established, under this alternative, seven byways are identified, thus having the greatest impact	Three Backcountry Byways are identified the impacts including improving identity of BLM and visitor education this has less impact than Alternative 3.	
From Wilderness Characteristics	No impacts are expected from carrying forward the previous management decisions.	This alternative has the most impact on transportation and public access, by closing routes to non-authorized OHV users.	This alternative has the least impact on transportation and public access; it allocates no areas for wilderness characteristics.	41,590 acres are to be managed to maintain wilderness characteristics. This is a smaller area of land to be managed for wilderness characteristics than in Alternative 2 and also allows OHV use on existing routes for all users, therefore having less impact on transportation and public access.	
From Visual Resource Management	No impacts are expected from carrying forward the previous management decisions.	Impacts are the same/similar to Alternative 5; they differ only by degree depending on the lands allocated to each VRM Class. This alternative has the most impact providing more acreage to the higher VRM classes.	Impacts are the same/similar to Alternative 5; they differ only by degree depending upon the amounts of land allocated to each VRM Class. This alternative has the least impact providing less acreage to the higher VRM classes.	Impacts are the same/similar to Alternative 5; they differ only by degree depending upon the amounts of land allocated to each VRM Class.	Managing for VRM could potentially cause future impacts on transportation and public access. Making management decisions to reflect the desired visual class could influence the route designation process and reduce the overall route network.